



AfricaCDC

Centres for Disease Control  
and Prevention

Safeguarding Africa's Health

# Strengthening Cross-Border Surveillance and Information Sharing in Africa

Strategic  
Framework



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# Strengthening Cross- Border Surveillance and Information Sharing in Africa

S t r a t e g i c  
F r a m e w o r k



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Africa CDC is a continental autonomous health agency of the African Union established to support public health initiatives of Member States and strengthen the capacity of their public health institutions to detect, prevent, control and respond quickly and effectively to disease threats.

## **Safeguarding Africa's Health**

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# Preface

In an era of unprecedented global interconnectivity, Africa finds itself at a pivotal juncture in its battle against public health threats. Infectious diseases, exacerbated by natural disasters and humanitarian crises, present formidable challenges that transcend national borders. While the mobility of people, animals, and goods drive economic growth in Africa, also contribute to the rapid spread of diseases, it places additional strain on an already overstretched public health system.

Despite notable advancements in healthcare delivery, Africa continues to face a disproportionate share of the global disease burden. The continent, which bears over 24 percent of the world's disease cases, is supported by only 3 percent of the global health workforce and receives less than 1 percent of the world's health funding. This disparity highlights the urgent need for a coordinated, robust approach to public health security across the continent.

The emergence and re-emergence of infectious diseases such as Ebola Virus Disease (EVD), Marburg, Rift Valley Fever (RVF), Crimean-Congo Haemorrhagic Fever (CCHF), and COVID-19 underscore the vulnerabilities that exist within and between African nations. These diseases, indifferent to borders, demand a strategic response that not only addresses immediate threats but also fortifies long-term resilience in the continent's public health infrastructure.

In response to these cross-border health challenges, the Africa Centres for Disease Control and Prevention (Africa CDC) has developed the Strategic Framework for Strengthening Cross-Border Surveillance and Information Sharing in Africa. This framework embodies Africa CDC's and the African Union Member States' commitment to enhancing health security through strengthened cross-border collaboration and information exchange.

The framework aims to address the growing frequency and severity of cross-border public health threats by prioritizing early detection, prevention, and management at Points of Entry (PoEs). It adopts a multi-sectoral, One Health approach that integrates human, animal, and environmental health, creating a comprehensive and sustainable public health system across the continent.

The overall goal of this strategic framework is to bolster cross-border surveillance, coordination, collaboration, and information sharing, thereby enhancing preparedness and response to public health threats among AU Member States. This framework represents a unified vision for Africa's health security, inviting all stakeholders to contribute to this critical mission and safeguard the health and well-being of every African.

# Abbreviations and Acronyms

AAR	After Action Review
AfCFTA	African Continental Free Trade Area
AFENET	Africa Field Epidemiology Network
Africa CDC	Africa Centres for Disease Control and Prevention
AU	African Union
CBRN	Chemical, biological, radiological or nuclear
CEN-SAD	Community of Sahel-Saharan States
COMESA	Common Market for Eastern and Southern Africa
CORDS	Connecting Organizations for Regional Disease Surveillance
CWG	Core Working Group
DALY	Disability-Adjusted Life year
EAC	East African Community
EAIDSNet	East Africa Integrated Diseases Surveillance Network
ECCAS	Economic Community of Central African States
ECOWAS	Economic Community of West African States
ECSA-HC-SATBHSS	East, Central, Southern African Health Community-Southern Africa Tuberculosis and Health Systems Support
EU	European Union
EVD	Ebola Virus Disease
EWAR	Early warning alert and response
FAO	Food and Agriculture Organization
IAR	Intra Action Review
ICAO	International Civil Aviation Organization
IDSR	Integrated Disease Surveillance Response
IEC	Information Education and Communication
IGAD	Intergovernmental Authority on Development
IHR	International Health Regulations
IMO	International Maritime Organization
IOM	International Organization for Migration
IPC	Infection Prevention and Control
JEE	Joint External Evaluation
JBP	Joint Border Post
MS	Member States
NAPHS	National Action Plan for Health Security
NGO	Nongovernmental organization
OSBP	One-Stop Border Posts



PHE	Public Health Emergencies
PHEM	Public Health Emergency Management
PoE	Points of Entry
RCC	Regional Coordinating Centre
RCCE	Risk Communication and Community Engagement
RCSDC	Regional Center for Surveillance and Disease Control
RECs	Regional Economic Communities
RISLNET	Regional Integrated Surveillance and Laboratory Network
SADC	Southern African Development Community
SDI	Division of Surveillance and Disease Intelligence
SME	Subject Matter Experts
SOP	Standard Operating Procedures
SWOT	Strength, Weaknesses, Opportunity and Threats
UK-PHRST	United Kingdom Health Rapid Support Team
UMA	Arab Maghreb Union
UNEP	United Nations Environment Programme
US CDC	United States Centres for Disease Control and Prevention
USAID	United States Agency for International Development
WAHO	West Africa Health Organization
WASH	Water Sanitation and Hygiene
WHO	World Health Organization
WOAH	World Organization for Animal Health

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# Executive Summary

The African Union Member States (AU MS) face significant health threats, particularly infectious diseases, due to its overstretched public health systems and infrastructure. Despite its remarkable improvements and growth in health sector service delivery in recent times, the African continent remains under-resourced. At the same time, the continent bears over 24% of the global disease burden while providing only 3% of the global health workforce and spending less than 1% of the world's financial resources on health.

Emerging and re-emerging infectious diseases, such as Ebola Virus Disease (EVD), Marburg, Rift Valley fever (RVF), Crimean-Congo Hemorrhagic Fever (CCHF), and COVID-19, alongside natural disasters and humanitarian crises, continue to pose substantial health, security, and economic challenges in Africa. The high mobility of people, animals, and goods across the continent in light of globalization exacerbates the spread of infectious diseases through formal and informal Points of Entry (PoEs), underlining the necessity for robust early detection of infectious diseases, emergency preparedness and response, infection control programs and enhanced capacity for healthcare workers at national and regional levels which will improve the early warning and response systems.

Africa Centres for Disease Control and Prevention (Africa CDC), the public health institution of the African Union, recognizes the critical need to address health challenges and emergencies effectively across the continent. In response to these health challenges Africa CDC has developed a continental strategic framework to strengthen cross-border surveillance, coordination, and information sharing among AU MS.

This continental strategic framework is designed to address the increasing frequency and magnitude of cross-border public health threats in Africa, which are driven by population movements, globalization, and human, animal and environmental

interactions within the ecosystems. The framework aims to strengthen and improve cross-border surveillance, coordination, collaboration, and information sharing among AU MS, focusing on PoE, including airports, ports, ground crossing and adjoining communities.

The key objectives of the framework include enhancing coordination and governance, building capacities at PoEs, improving data sharing mechanisms, strengthening risk communication, and monitoring population mobility patterns across AU MS. This Africa CDC strategic framework will also bolster the continent's preparedness and response to health emergencies, contributing to the overall resilience and robustness of public health systems in the AU MS

A review of existing cross-border surveillance, coordination, collaboration, and information sharing in Africa reveals a rather complex landscape shaped by various policy instruments, frameworks, plans, and initiatives and highlights associated challenges across the African continent.

At the international level, the International Health Regulations (IHR) provide a foundation for detecting and responding to public health emergencies by strengthening and improving surveillance capacities at PoEs and fostering regional collaboration and international cooperation. It underscores the need for a continental strategic framework within the AU. In the same vein, the Global Framework for the Progressive Control of Transboundary Animal Diseases (GF-TADs) and the Performance of Veterinary Services (PVS) tools aim to strengthen veterinary services and control Trans-boundary Animal Diseases (TADs) and zoonosis through regional and international cooperation that emphasizes the One Health approach, which integrates human, animal, and environmental health globally.

At the AU level, the African Union Agenda 2063, Africa Health Strategy 2016-2030,

and Africa CDC Strategic Plan 2023-2027 provide overall vision, direction, and strategic priorities and aim to enhance public health systems, strength cross-border disease management, and improve health security on the continent.

A SWOT analysis of the current situation highlighted strengths, including existing policies and strong civil society engagement, and opportunities for improvement, such as strengthening PoE infrastructure and training. The analysis also highlighted weaknesses, such as underfunding, inadequate cross-border reporting, and health threats from insecurity and climate emergencies. Addressing these issues through comprehensive policy implementation, capacity building, and robust international cooperation is essential for effective cross-border disease surveillance and public health security in Africa.

The strategic framework for continental cross-border surveillance and information sharing focuses on enhancing cross-border surveillance and response to public health threats through a coordinated, multi-sectoral, multi-disciplinary One-Health approach. The framework emphasizes the need for early disease detection, prevention, and management across African borders.

The framework is organized into six strategic pillars in Chapter 3, each with specific interventions to tackle key challenges to effective cross-border surveillance and information sharing.

The strategic pillars of the framework include:

- Strengthen Coordination, Collaboration, Governance, and Financing for Cross-Border Surveillance
- Enhance Capacities at Points of Entry (PoE) for Early Detection and Response
- Strengthen Mechanisms for Data Sharing and Operational Research
- Improve Surveillance and Laboratory Systems at PoE
- Improve Risk Communication, Community Engagement, and Social Mobilization
- Strengthen Monitoring and Mapping of Population Mobility

Successful implementation of this Strategic framework on cross-border surveillance will heavily depend on effective coordinated

institutional arrangements, active stakeholder partnerships, and robust financial mechanisms. The Africa CDC working in collaboration with regional economic communities (RECs), i.e Common Market of Eastern and Southern Africa (COMESA), East Africa Community (EAC), Economic Community of Central Africa States (ECCAS), Economic Community of West African States (ECOWAS), Southern Africa Development Community (SADC), Arab Maghreb Union(UMA), Inter-governmental Authority on Development (IGAD), Community of Sahel-Saharan States (CES-SAD) and AU MS, will guide and oversee the integration of the framework into national plans based on the respective AU MS priorities. The AU MS will be directly responsible for implementation in their respective jurisdiction.

The Africa CDC, RECs, and other development partners working with AU MS will provide technical support, promote legal frameworks for data sharing, and draft progress reports periodically. The responsibility to incorporate the framework into national surveillance groups, provide necessary infrastructure, and mobilize resources lies with the AU MS.

Key stakeholders will offer technical expertise, operational support, and financial resources, contributing to the overall sustainability of the framework. They will also contribute to improving surveillance capacities and responding to public health risks. In addition, the strategy defines roles and responsibilities to ensure clarity and effective collaboration, embracing the One Health approach and multi-hazard perspective. Key stakeholders include development and technical partners, international organizations, private sector entities, civil society organizations, and academia.

Resource mobilization from the AU MS is crucial. Development partners and other stakeholders will also contribute to the framework's sustainability, emphasizing the need for sustained commitment and investment in cross-border health surveillance initiatives.

Monitoring and Evaluation (M&E) of the strategic framework will follow the Africa CDC's M&E system which involves a multi-level and stakeholder-inclusive approach. The M&E framework is structured around

six strategic pillars outlined in Chapter 3 of this strategic framework. Further, it aims to document best practices and lessons learned for adaptation across different settings across the continent. Continuous monitoring will involve systematic data collection on key indicators to provide evidence of progress, efficiency, and effectiveness. Evaluation will assess the relevance and impact of the framework using baseline data for comparison.

Africa CDC will produce annual performance reports and document case studies and success stories to communicate progress and achievements and inform decision-making and continuous improvement of Africa's strategies, interventions, and policies. Continental and Regional Community of Practice with AU MS, technical partners, and RECs will be established to share lessons learned on successful practices for implementing cross-border

initiatives. It is envisaged that fostering strategic collaborations will be essential for implementing and evaluating the framework effectively. The periodic evaluations will also facilitate internal organizational learning and resource reallocation as needed.

The strategic framework encapsulates a comprehensive harmonized approach for cross-border surveillance, coordination, collaboration, and information sharing across Africa. Diligent implementation of strategic interventions, leveraging existing policies, and resource mobilization are crucial for success.





# 1.0 Background

Despite bearing a high global burden of health threats, including infectious diseases, Africa has shown remarkable resilience with its overstretched public health system and infrastructure ([Africa CDC, 2017](#)). While there are ongoing improvements in critical health service delivery, the health systems in Africa, though underfunded and overburdened, are striving to accommodate the existing burden of diseases ([Oleribe, O.O et al 2019](#); [WHO 2020](#)). Africa, accounting for 11–13% of the world population, is shouldering a disease burden of 24% and yet, Sub-Saharan Africa “commands less than 1% of global health expenditure” ([Azevedo M.J. 2017](#)).

Public health threats and events including emerging and re-emerging diseases such as viral haemorrhagic fevers like Ebola Virus Disease (EVD), Marburg Virus Disease (MVD), Crimean-Congo Haemorrhagic fever (CCHF) and Coronavirus disease 2019 (COVID-19), natural disasters (like floods, droughts) and humanitarian crises, remain a significant global health security and economic concern. The African Region reports the heaviest burden of public health emergencies globally, with more than 100 major public health events taking place annually. Between 2001 and 2022, a total of 2,234 public health events were recorded in the WHO African Region, of which 1,886 events (84.3%) were substantiated. The large majority (92%, n=1,730) of the events recorded were infectious diseases; 30% (n=566) were zoonoses; and 5% (n=95) were humanitarian crises such as disaster events and conflicts ([Koua, E.L et al 2023](#)). Every year, they account for over 227 million years of health life lost and produce an annual productivity loss of over \$800 billion ([Nkengasong & Tessema 2020](#), [WHO 2019](#)). The diseases afflicting the African population are responsible for a substantial loss of health. In the WHO African Region, total losses amounted to 629,603,271 Disability-Adjusted Life Years (DALYs) in 2019 ([WHO 2019](#)).

The widespread movement of people, animals, and goods, ever-increasing population numbers, urban development, environmental degradation, inadequate

supervision of food control systems, and other contributing factors have given infectious agents rapid and easy access to new populations and geographic areas and spawned a host of emerging and re-emerging infectious diseases (EIDs)—the majority of which are zoonotic ([Khabbaz et al. 2015](#)).

The emergence of these life-threatening infections has highlighted the need for efficient infection, prevention and control (IPC) programmes in all healthcare settings and capacity building for healthcare workers so they can be implemented ([WHO, 2003](#)). Following the declaration of COVID-19 as a pandemic by the Director-General of the World Health Organization (WHO) in March 2020, many countries prioritized the potential risks of disease transmission from varied PoE such as airports, sea ports and ground crossings ([WHO, 2021](#)). Africa has a mobile and interconnected population, with common and complex cross-border movements, which inherently increases the risk of disease spread. Moving individuals, animals, produce, and goods into and out of new populations and environments may pose different health risks ([Urquia & Gagnon, 2011](#)). The long-standing cultural, economic, and political relationships among African countries contribute to the complexity of their cross-border connectivity.

PoE are challenging places involving diverse cargo transportation and people from different areas of the world. Although international transport, travel, and trade contribute to economic development and welfare of populations, they may also pose public health risks. The increasing traffic at airports, ports, and ground crossings can play a significant role in the international spread of diseases through persons, conveyances, and goods ([Ndoungué et al., 2022](#); [Onyekuru et al., 2022](#)). Air travel can rapidly connect any two points on the planet within a short period and has the potential to cause swift and broad dissemination of emerging and re-emerging infectious diseases, thereby posing a threat to global health security ([Findlater & Bogoch, 2018](#); [IOM, 2020](#)). In recognizing the advent and effects of globalization,

population movements, the influence of community interconnections, and the fact that diseases do not recognize borders, the Africa CDC established and supported existing cross-border health programs to strengthen cross-border surveillance collaboration, coordination, communication, and timely information sharing among Africa Union (AU) Member States (MS).

After the Ebola Virus Disease (EVD) outbreak in West Africa from 2014 to 2016, significant measures were taken to enhance surveillance, preparedness, and response to future public health threats, focusing on PoE ([Onyekuru et al 2022](#)). This proactive approach, prompted by identifying critical gaps in the existing systems for surveillance, readiness, preparedness, response and recovery to health emergencies, reassures us about the preparedness for future health threats ([Khatiri, R.B et al 2023](#)).

The strength of cross-border health surveillance lies in its pivotal role in enhancing the early detection, control and prevention of transboundary public health threats. The border health surveillance systems are not standalone entities but are interconnected with the national disease systems, which in turn are ultimately linked to the regional, continental, and global systems. This interconnectedness underscores the strength of the collective effort to safeguard public health.

The International Health Regulations ([IHR 2005](#)) provide a legal framework for containing the importation and exportation of communicable diseases through effective implementation of risk management throughout the travel continuum, including at PoE. The IHR is designed to safeguard the socioeconomic and political integration globally. This is aligned with the [Africa Health Strategy 2016-2030](#), the African Continental Free Trade Area (AfCFTA), the [Africa CDC Strategic Plan 2023-2027](#), and ultimately to achieve the [AU Agenda 2063: "The Africa We Want"](#).

The Africa CDC Cross-border Surveillance Program aims to strengthen cross-border surveillance systems within the AU MS and ensure linkages with national disease surveillance programs. It also complements

other border health initiatives and efforts being undertaken by other stakeholders like WHO. In pursuit of this objective, the Africa CDC has developed a five (5)-year strategic framework to guide and support AU MS in enhancing cross-border surveillance systems and contribute to improved disease prevention, detection and control. The key features of cross-border surveillance include prevention, early detection, regular information sharing, risk assessment, international cooperation and collaboration (including sharing existing health infrastructures and assets, and response in line with IHR. Member States are encouraged to adopt interventions in this framework into their respective National Action Plan for Health Security (NAPHS).

## 1.1 Rationale for the Strategic Framework

In our increasingly interconnected world, the benefits of international transport, travel, and trade are undeniable, fuelling economic growth and improving the lives of many. However, this global integration also brings significant public health risks. Among these are the threats of Chemical, Biological, Radiological, and Nuclear (CBRN) origins, which can easily cross borders and affect multiple nations ([Duarte-Davidson R et al. 2014](#)). The factors that contribute to these health threats are numerous, including the movement of humans, animals, and goods across borders and variations in surveillance performance structures and national priorities ([Ekmekci PE, 2016](#)).

The frequency and severity of cross-border disease outbreaks have seen a worrying increase in recent years. These outbreaks, often caused by pathogens transmitted through the movement of people, animals, and goods, can have devastating effects. The traffic at formal and informal borders, which can facilitate the rapid spread of diseases across geographic spaces, is a significant contributing factor; particularly true in regions with similar epidemiological profiles, socio-economic drivers, and frequent movements of people or animal carriers. The increased human-animal interaction has also led to the spillover of pathogens from animals to humans and vice versa, resulting in the

emergence and re-emergence of infectious diseases and a surge in disease outbreaks ([Baker et al. et al. 2022](#), [Khabbaze et al. 2015](#), [Church et al. 2004](#)).

The International Health Regulations (IHR) is crucial in managing cross-border health threats. They require countries to implement health measures at Points of Entry (PoE) that are proportionate to public health risks and do not unduly interfere with travel and trade. They also call for the strengthening of core capacity requirements at designated PoE. In line with these regulations, a global push exists for all countries to enhance their capacities and capabilities for effective cross-border health surveillance, coordination, and information sharing. The Joint External Evaluation (JEE), a component of the IHR Monitoring and Evaluation framework, is a voluntary, collaborative, multi-sectoral process that assesses a country's capacities to prevent, detect, and rapidly respond to public health risks, whether occurring naturally or due to deliberate or accidental events (WHO, 2016).

Findings from a review of JEE conducted from 2016 to 2019 in 40 of 47 countries in the WHO AFRO region show that most countries in the region had limited capacity for IHR implementation at PoE as none of the 40 countries had a capacity level of score 5. Few had IHR capacity levels at a score of 3 or 4 ([Talisuna et al., 2019](#)). In addition, some AU MS lack the diagnostic capacity for zoonotic diseases, coordinated surveillance mechanisms, multi-sectoral response, and skilled workforce ([Alimi et al., 2023](#)).

[The African Continental Free Trade Area \(AfCFTA\)](#) provides for free movement of people, animals and goods ([AU, 2018](#)). Unfortunately, the movement of people, animals, and goods comes with the potential cross-border spread of pathogens, some of which may result in disease outbreaks. As we move into the implementation phase of the AfCFTA, we also need to consider that human mobility may contribute to the geographical spread of pathogens – as aptly demonstrated by the EVD outbreak in West Africa and the recent COVID-19 pandemic.

Africa CDC calls on MS to strengthen cross-border collaboration, coordination, and information sharing to attain coordinated public health surveillance, communication, preparedness, and response to public health threats within the MS and their neighbouring countries. Furthermore, coordination, communication, and collaboration are crucial for the resilience of continent-wide health systems. Cross-border collaboration constitutes arrangements and actions carried out jointly by different actors on both sides of the border to improve the capacity to prevent, detect, and respond to public health risk events.

Against this background, Africa CDC has developed this strategic framework to guide cross-border surveillance, coordination mechanisms, collaboration, and timely information and data sharing among AU MS. This will contribute to strengthening the capabilities of PoE and, consequently, Africa's public health institutions and systems to prevent, detect and respond quickly and effectively to disease outbreaks and other public health threats.

## 1.2 Scope of the Strategic Framework

This strategic framework covers strengthening cross-border surveillance, coordination, collaboration, and information sharing among AU MS, including the PoE (airports, sea ports, and ground crossings) and adjoining communities.

## 1.3 Purpose of the Strategic Framework

This framework provides guidance on proposed interventions that MS should adopt and implement to strengthen cross-border surveillance and timely information and data sharing. The strategic framework will contribute to improved health of the mobile population and communities along the entire international borders and around PoE by mitigating and preventing cross-border public health threats among the AU MS. It will also serve as a strategic axis for disease control at borders and an appropriate response mechanism for AU member states.

## 1.4 Overall Objective

To strengthen cross-border surveillance, coordination, collaboration, and information sharing for better preparedness and response to public health threats among AU MS.

### 1.4.1 Specific Objectives

The objectives of this strategic framework are to:

- i. Strengthen coordination, collaboration, governance and financing for cross-border surveillance
- ii. Enhance capacities at PoE (including infrastructure, logistical and technical capacities) for early detection and response to public health threats.
- iii. Strengthen mechanisms for cross-border public health data and information sharing and operational research.
- iv. Improve cross-border surveillance and laboratory systems at PoE
- v. Improve cross-border risk communication, community engagement and social mobilization
- vi. Strengthen monitoring and mapping of population mobility patterns and dynamics to enhance the evidence base for communicable disease prevention, detection, and response

## 1.5 Target Audience

This strategic framework is intended for use by Ministries responsible for human, animal, and environmental health, trade, immigration, foreign affairs, and other relevant ministries, departments, organizations, agencies, and sectors involved in cross-border activities, National Public Health Institutes (NPHI), academia, and other stakeholders, including non-state actors.

### 1.6 Strategic Framework Development Process

This strategic framework was developed through a participatory and consultative process led by the Africa CDC, including Regional Coordinating Centre (RCCs), in collaboration with representatives of Regional Economic Communities (RECs), AU MS experts involved in port health, surveillance, coordination, collaboration, and information sharing. It also includes inputs from international partners like the US CDC, International Organization for Migration (IOM), WHO, and UK Public Health Rapid Response Team (UK-PHRST), amongst others, that work on border health. The process started with internal consultations and the establishing of a Technical Working Group (TWG) by the Africa CDC. There were a series of consultative meetings/workshops at continental and regional levels starting in October 2022 to April 2024, as shown in Figure 1

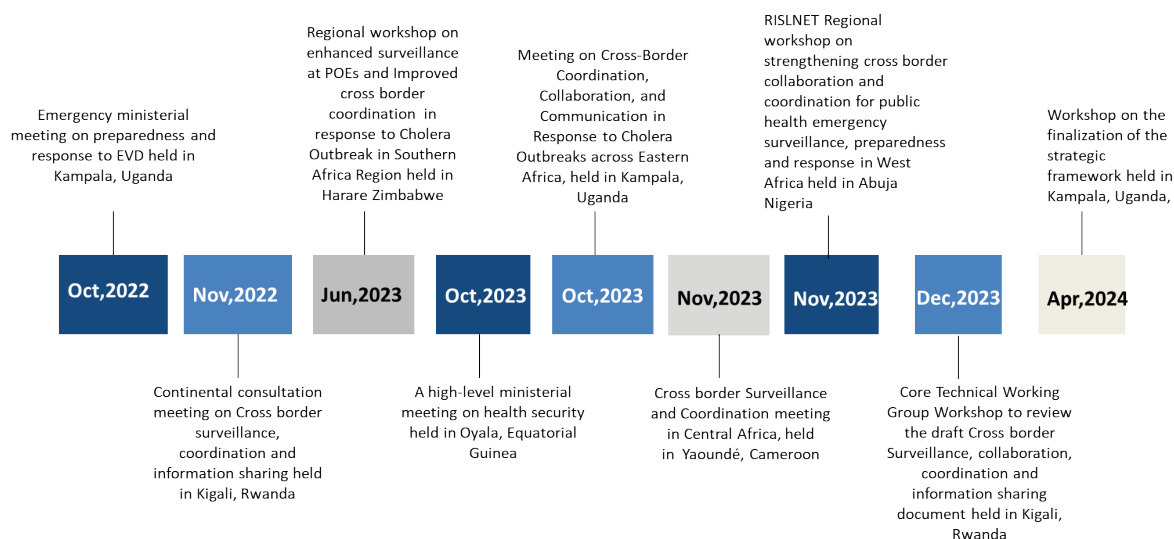


Figure 1: Graphic illustration of the Strategic Framework development process

## 1.7 The role of Africa CDC: The Strategic Mandate of Africa CDC

Established in January 2017 as the specialized technical Agency of the African Union, the Africa Centres for Disease Control and Prevention (Africa CDC) has been entrusted with the primary mandate of safeguarding Africa's health security. Despite facing resource constraints and a limited workforce, Africa CDC has demonstrated the power of regional coordination in responding to public health emergencies. Consequently, Africa CDC was elevated to an autonomous health agency of the Africa Union during the 26th Ordinary Assembly of Heads of State and Government in February 2022, granting it the agility and empowerment to effectively respond to Member States' needs.

Figure 2 below outlines the Africa CDC vision, mission, aspiration, priorities 2023 -2027 and enablers

This continental strategic framework will complement existing national and regional plans on cross-border surveillance through direct technical support, coordination, collaboration, information sharing, advocacy for increased funding, community of practice, and the use of peer review mechanisms for cross-cutting learning, monitoring and evaluation.

In addition, this strategic framework also contextualizes global prevention and control of communicable diseases strategies and promotes global health security in the African context.

In furtherance of its work, Africa CDC established a cross-border surveillance program aligned with the Africa CDC's Strategic plan (2023-2027) and its strategic priorities. In addition, this framework is aligned with the "[A New Public Health Order for Africa](#)".

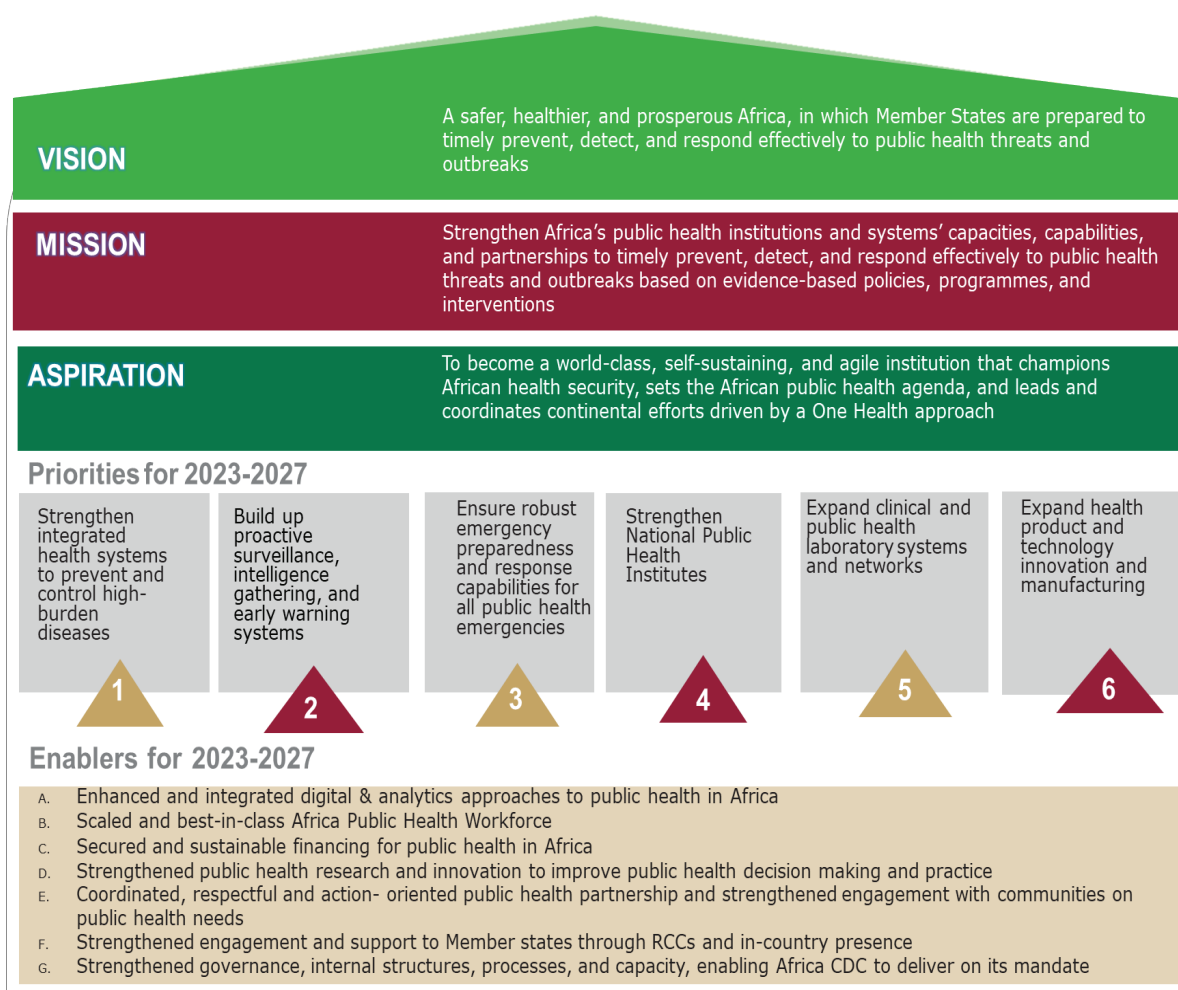


Figure 2. Africa CDC vision , mission, aspiration, priorities 2023 -2027 and enablers 2023 -2027



There are 5 Regional Coordinating Centers (RCC) coordinating specific regions, as shown in Figure 3

As indicated, Africa CDC works in the five regions of the AU: Northern, Western, Central, Eastern, and Southern.

In each of the regions, Africa CDC has established Regional Coordination Centres (RCCs) to consolidate the aim of the mission and actualize an “Africa CDC without walls”, as stated in Article 24 (1) of the Africa CDC Statute. In the respective regions, the Africa CDC works in liaison with the respective eight Regional Economic Communities (RECs) as recognized by the AU. The RECs include the Arab Maghreb Union (UMA), the Common Market for Eastern and Southern Africa (COMESA), the Community of Sahel-Saharan States (CEN-SAD), the East African Community (EAC), the Economic Community of Central African States (ECCAS), the Economic Community of West African States (ECOWAS), the Intergovernmental Authority

on Development (IGAD), and the Southern African Development Community (SADC). In addition, the Africa CDC RCCs work directly with NPHIs and Ministries of Health (MOHs) in the MS. Africa CDC RCCs support MS in ensuring improved infrastructure and enhanced capacity for integrated regional networks for disease surveillance, including laboratories and emergency preparedness and response. The NPHIs are national-level institutions that lead and coordinate public health functions, including disease surveillance, laboratory systems and networks, emergency preparedness, response and public health research.

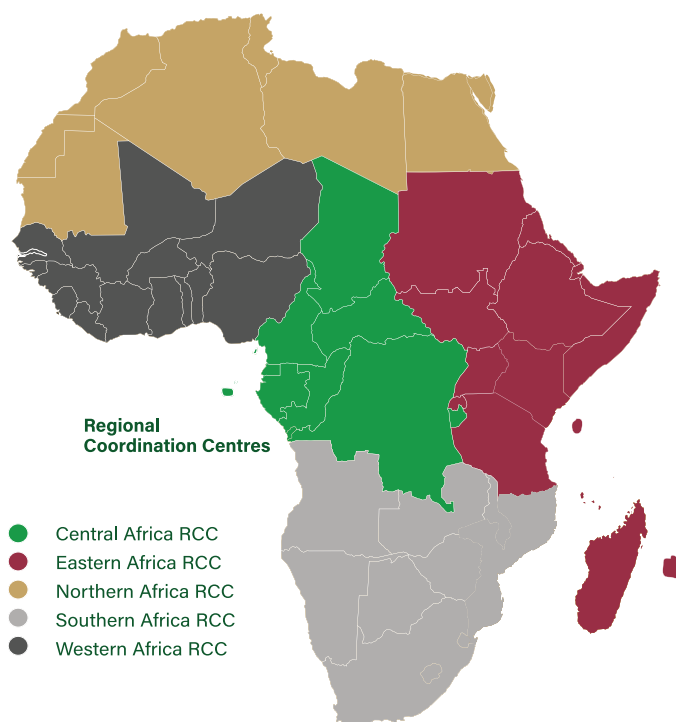


Figure 3: The map of Africa CDC indicated RCC regions



## 2.0 Situational Analysis of Cross-border Surveillance, Coordination, Collaboration and Information Sharing

This section examines the continental cross-border surveillance policy instruments in place and several initiatives being undertaken at various levels on cross-border surveillance, coordination, collaboration and information, especially at the RECs level. This chapter also highlights the surveillance aspects of cross-border movements, including at PoE, travellers and their goods, the adjoining communities and a SWOT analysis of cross-border surveillance, coordination, collaboration and information sharing.

### 2.1 Policy Environment of existing Protocols, Frameworks and Guidelines for Surveillance, Coordination, Collaboration and Information Sharing.

The IHR aims to detect, verify, notify, and respond to potential public health emergencies at the international level. The IHR requires countries worldwide to develop and strengthen the core capacities at PoE, including building surveillance linkages between the PoE and the national surveillance systems (Annex 1A of IHR (2005)). It also requires strengthening public health emergency preparedness and response at designated PoE by developing a multi-hazard public health emergency contingency plan using a multi-sectoral approach.

In particular, Annex 1B of the IHR (2005) mandates countries to establish disease surveillance and response capacities at designated PoE to minimize the risk of cross-border disease transmission. Article 57 of the IHR (2005) provides for the collaboration of countries in regional blocs like the AU and RECs to facilitate joint measures to prevent and contain health diseases, conditions, and events of public health importance.

On the animal health side, the “[Global Framework for the Progressive Control of Transboundary Animal Diseases](#)” (GF-TADs) was launched in 2004. GF-TADs is a facilitating mechanism which endeavors to empower regional alliances in the fight against transboundary animal diseases

(TADs), including zoonoses, to provide for capacity building and to assist in establishing programs for the specific control of certain TADs based on regional priorities. The Performance of Veterinary Services (PVS) tools, developed by the World Organization of Animal Health (WOAH), provide a systematic approach to assess the performance of veterinary services nationally. The tools (WOAH PVS Tool and PVS Gap Analysis) track the performance of Veterinary Services across countries (a harmonized tool) and over time (the PVS Pathway) ([Msellati L et al 2012](#)). The tools help countries identify gaps in their veterinary services’ capabilities and capacities and develop strategies for improvement. They cover various areas, including legal frameworks, resources, surveillance, laboratory capabilities, and response to disease outbreaks. In brief, PVS assessments evaluate a country’s surveillance systems’ effectiveness and ability to respond to disease outbreaks. At the same time, GF-TADs contribute to improving surveillance networks and developing disease control and prevention strategies, leveraging regional (cross-border) cooperation and expertise within its networks.

At the continental level, the AU Heads of State and Government have adopted various global and continental frameworks to catalyse the implementation of cross-border surveillance coordination, collaboration, and information sharing.

Some of the key policy frameworks include:

- [The African Union Agenda 2063](#) - Is Africa’s blueprint and a master plan for transforming Africa into a global powerhouse of the future. It has seven aspirations. Aspiration 1 underpins the African Continental Free Trade Area (AfCFTA) implementation strategy that aims to enhance the free movement of goods and persons through improved trade conditions. The AfCFTA is the first step in the integration process that creates Africa as one free trade area as embodied in the Agreement of Establishing the Continental Free Trade Area, the Protocol

on Trade in Goods, and the Protocol on Trade in Services.

- **The Africa Health Strategy 2016–2030** provides strategic direction for creating better-performing health sectors, recognizes existing continental commitments, and addresses critical challenges to reducing Africa's disease burden.
- **The Africa CDC Strategic Plan 2023-2027** aims at strengthening Africa's public health institutions and systems capacities, capabilities, and partnerships to timely prevent, detect, and respond effectively to public health threats and outbreaks based on evidence-based policies, programs, and interventions;
- **The Catalytic Framework to End AIDS, TB, and Eliminate Malaria by 2030** aims at eliminating AIDS, TB and malaria in Africa by 2030, underpinning one of the core values of disease know no boundaries; hence, cross-border cooperation in disease management and control is required;
- **The Livestock Development Strategy for Africa (LiDeSA) 2015 – 2035**: This strategy, amongst other issues, aims to address identified barriers in the sector by enhancing animal health and increasing the production, productivity, and resilience of production systems, including addressing TADs and Zoonosis;
- **Animal Health Strategy for Africa 2018-2035**– This strategy aims at improving the health and productivity of the animal population to enhance the economic and social welfare of Africans with a focus on the risks of transmitting TADs and zoonotic diseases, as well as the risk of emerging and re-emerging zoonotic diseases that have devastating public health, environment and socio-economic impacts;
- **Strategic Framework for Cross-Border and Regional Programming in Tuberculosis (TB) Prevention and Control for East, Central and Southern Africa** This strategic framework aims to facilitate and coordinate the implementation of a regional response in support of TB control efforts. This would ensure comprehensive support to member states, effective engagement of stakeholders including non-member states and the coordination of regional efforts to reduce the risk of TB exposure, infection and disease associated with population movements across international borders.

- **Framework for Cross-Border Integrated Disease Surveillance and Response for the Eastern and Southern Africa** –aimed to strengthen cross-border coordination and response in the sub-region through establishment/ strengthening of cross-border zones and committees across the Eastern Africa and Southern Africa led by the EAC, ECSA-HC and IGAD. The framework further aims to foster collaboration and implement a harmonized cross boarder diseases surveillance, joint outbreak, preparedness and response across the region through One Health approach in border zones.

Regional bodies such as RECs, inter-governmental institutions, regional professional associations, and regional networks have actively contributed to the social economic development and health agendas. In addition to the AU, the RECs with health programs include the EAC, SADC, and WAHO, as well as specialised institutions of the Economic Community of West African States (ECOWAS). Additionally, regional intergovernmental bodies such as the East, Central, and Southern African Health Community (ECSA-HC) and the African Development Bank play critical roles in the African health sector (USAID, 2014). Cross-border is part of the key regional areas in pursuit of the health security agenda of regions in Africa.

Some of the regional policy instruments include:

- **The EAC Institutional Framework for Cross-border Integrated Disease Surveillance and Response in the East African Region.** This framework provides a mechanism for establishing a harmonized consensus-based collaboration and implementation of cross-border disease surveillance and joint outbreak investigation and response in line with Articles 108 (on Animal health), 118 (human health) and 116 (on the environment) of the East African Community Treaty of 1999;
- **The EAC One Stop Border Post (OSBP) Act. 2016** aims to enhance trade by efficiently moving goods, persons, and services within the EAC. The Act covers all OSBP in the EAC Partners States.
- **The IGAD Cross-border Health Policy (2021-2030)** envisions a region where the health and well-being of cross-border populations are a high priority in all IGAD Member States;

planning and health service delivery.

- The **IGAD Regional Health Data Sharing & Protection Policy** is a framework designed to help Member States implement data sharing and privacy policies in line with international best practices
- **ECCAS One Health Regional Strategic Plan and Cross-border collaborative surveillance for diseases with human and animal epidemic potential,**
- **SADC Protocol on Health 1999 Article 25-** which encourages the development of mechanisms for cooperation and assistance with emergency health services between member states;
- **West African Health Organization (WAHO) Strategic Plan 2016 -2020;**
- **WHO's strategy for the Eastern Mediterranean Region 2020 – 2023** envisions health for all, by all, as the core principle.

#### Technical guidance documents and tools

In addition to policy instruments, some valuable tools in place for cross-border surveillance, coordination, collaboration, and Information include:

- **WHO Technical Guidelines for Integrated Disease Surveillance and Response (IDSR)** across the African Region: The IDSR is a strategy adopted by countries in the WHO African Region (WHO AFRO) for implementing comprehensive public health surveillance and response systems for priority diseases, conditions and events at all levels of health systems. The IDSR guidelines recommend thresholds for action on priority diseases, public health events and conditions and for responding to alerts;
- **WHO Handbook for public health capacity-building at ground crossings and cross-border collaboration.** The Handbook follows a comprehensive approach to health system strengthening at borders in order to support IHR national focal points and other national agencies in developing and implementing evidence-based action plans for IHR capacity development at ground crossings and cross-border coordination;
- **WHO International Health Regulations (2005): an assessment tool for core capacity requirements at designated airports, ports and ground crossings**

This WHO [IHR assessment tool](#) supports and guides States Parties in determining existing capacities and capacity needs at points of entry when deciding which airports, ports, and ground crossings to designate under Article 20.1 and Annex 1B of the IHR. Countries may also use it when deciding which airports, ports, and ground crossings to designate under Article 19(a).

- **IOM: Health Border & Mobility Management (HBMM) Framework.** The IOM HBMM strategic framework outlines the role and objectives in preventing, detecting, and responding to communicable diseases in the context of widespread and multi-directional human mobility;
- **US CDC: Tool to prioritize points of entry and points of control (Top POE/C).** This tool is intended to assist public health leaders with a systematic approach to prioritizing POE/C for short- or long-term capacity building, regardless of WHO IHR designation status.
- **US CDC: Population Connectivity Across Borders (PopCAB) tool:** The [PopCAB toolkit](#) gathers and analyses information about population mobility to inform public health interventions. It determines the types of travellers moving through an area, the routes taken, and the reasons for travel. Understanding these movement patterns in general and at PoE can help inform preparedness and response strategies for communicable diseases. (:<https://www.cdc.gov/immigrantrefugeehealth/popcab-toolkit.html>)

## 2.2 Review of the current status of cross-border initiatives for surveillance, collaboration, coordination, and information sharing

It is also important to note that there have been initiatives in Africa to strengthen cross-border coordination, collaborations, and implementation of cross-border surveillance. This has been at both continental and regional levels. Some of these include the

- **East Africa Integrated Diseases Surveillance Network (EAIDSNet).** EAIDSNET is a regional collaborative initiative of the national ministries of the EAC Partner States responsible for human and animal health in collaboration with national health research and academic institutions.

- **Connecting Organisations for Regional Disease Surveillance (CORDS)** CORDS is a program for ending pandemics, comprised of six regional member networks working in 28 countries in Africa, Asia, the Middle East, and Europe. It focuses on detecting and controlling the spread of infectious diseases by catalyzing exchange and collaboration among regional surveillance networks globally.
- **Africa Field Epidemiology Network (AFENET)** was set up in 2005, with support from the US CDC and the ministries responsible for health, to establish a network of Field Epidemiology Training Programs in Africa to ensure adequate capacities for disease surveillance and response in the continent including cross-border surveillance and information sharing. It aims to strengthen field epidemiology and public health laboratory capacity to address major African public health problems.
- **Regional Integrated Surveillance and Laboratory Network (RISLNET)** is a unique modality that brings together public health institutions, professionals, and other existing networks to accelerate regional IHR implementation by facilitating the use of existing public health assets, cross-border transfer of specimens, and sharing of data and best practices. RISLNET is in all Africa CDC and RCCs that coordinate and integrate data from all regional public health surveillance, laboratory, and emergency response assets to prevent, detect, protect against, respond to, and control public health events in the region and, ultimately, in the continent.

## 2.3 Situation at Points of Entry (PoE)

Cross-border diseases spread through the movement of people, goods, animals, and vectors ([Merrill, R D et al., 2017](#)). The institutional capacity to handle and manage these challenges at the PoE is limited, as indicated in the JEE reports of WHO AFRO region countries; therefore, strengthening capacity at PoE and building core capacities at designated PoE is necessary ([Talisuna et al., 2019](#)).

Sometimes, there is inadequate staffing at the PoE, and in some cases, the capacity of the respective staff needs to be improved.

The potential for pathogen collection at PoE is

significant due to the high volume of people and animals passing through. It is imperative to establish capacities for identifying critical points that could pose transmission risks, such as water and food supply chains, vectors, the PoE environment, and any potential sources of infection and contamination, including immigration fingerprinting machines, door handles, benches, and waste management ([Bakari et al., 2013](#)).

Health sector data and information are not just crucial, it is the lifeblood of policy and decision-making. However, the limited data use and information sharing between member states is a significant [barrier](#).

PoE and other multi sectoral and multidisciplinary staff must be equipped with the necessary skills for border health surveillance, and investing in their training is a priority ([Usman A.B et al 2023](#)). The multi-sectoral approach to health threat management at PoE necessitates effective communication and collaboration across numerous sectors, including human, animal and environmental health, foreign affairs, customs, interior affairs, security, transport, tourism and migration. ([WHO 2014](#)). Risk communication and community engagement are paramount in the control of cross-border epidemics.

The movement of people across borders needs to be better documented. The documentation should include significant stopovers during their journey to their final destination. A PoE is one of the critical points of the mobility continuum in Border Health. To effectively carry out targeted public health interventions at both formal and informal/unofficial ground crossing points and cross-border locations, the movements of migrant populations must be mapped and documented ([IOM, 2019](#)).

### 2.3.1 Cross-border Communities

Border communities are settlements near borders between countries or regions. They have distinct traits influenced by their proximity to borders, like cultural, economic, and social aspects. They face challenges and opportunities related to border control, trade, immigration, and cross-border interactions.

Given the high rate of movements, diseases



can swiftly spread, intensify, and significantly impact cross-border trade and livelihoods. This underscores the crucial need for border community members to be sensitized and raise awareness about the necessity of adequate preparedness against public health emergencies like COVID-19, EVD, and more. Mainly, communities with large populations that traverse formal and informal border points are at a heightened risk of infectious disease transmission. These border communities share common risk factors, including low population immunity, under-resourced health infrastructure with weak routine immunization systems, regional or local political instability, socioeconomic disadvantages, and a similar ecology. Therefore, disease surveillance and rapid response to outbreaks are paramount ([USAID 2019](#), [Arale A et al 2019](#)).

Infectious diseases are critical transboundary issues since humans and livestock can be infected with diseases originating from neighbouring nations. The transmission of diseases from migrating Wildlife to livestock or Wildlife is a common transboundary problem ([Medley A.M et al., 2020](#)). Cross-border interaction is very high for cross-border communities. The borders in Africa are highly porous. Most informal crossings have no screening, reporting, or surveillance facilities (Lamarque et al.; H., 2022). Precautions are necessary to prevent the potential spread of public health emergencies and other infectious diseases in cross-border communities.

### 2.3.2 Transboundary /Cross-border Ecosystems

The plants, animals, micro-organisms, waters, weather systems, and other elements that constitute the environment, including people, do not remain within jurisdictional boundaries. More often than not, they cross the political boundaries between nations. When this occurs, the environmental issues of mutual concern that arise from the shared natural area, resource, system, or migratory species are called “transboundary”. Transboundary (cross-border) ecosystems, including river systems, are common on the African Continent. However, they may also expose the population to disease and

other risks. Some of the cross ecosystems in Africa include river basin ecosystems, forests, savanna and mountain ecosystems. Most of the savannah ecosystem in Africa hosts the continent’s wildlife. An example of this ecosystem is the Masai Mara (Kenya) / Serengeti (Tanzania) ecosystems, where wildlife moves across borders undeterred. This may spread diseases, posing a significant threat to public health and the environment.

In addition, climate change is altering the distribution, incidence, and intensity of animal, human and plant pests and diseases, hence exacerbating pathogen movement across borders. This has resulted in the emergence and re-emerging of transboundary diseases, including zoonosis. The movement of plant pests, animal and human diseases, and invasive alien aquatic organisms across physical and political boundaries threatens food security and disease outbreaks. It creates a global public concern across all countries and all regions. Climate change has increased the occurrence of diseases in some natural and agricultural systems. However, in many cases, outcomes depend on climate change and the details of the host-pathogen system. Future work must continue to anticipate and monitor pathogen biodiversity and disease trends in natural ecosystems and identify opportunities to mitigate the impacts of climate-driven disease emergence ([Altizer S et al. 2013](#)).

Further, it is a natural fact that wind and water do not respect national boundaries. One country’s pollution quickly can, and often does, become another country’s environmental and economic crisis. Rivers flow from one country to another, like the Nile River, from Uganda through South Sudan, Sudan, and Egypt to the Mediterranean Sea . These cross-border rivers can result in cross-border pollution. Cross-border pollution, in the narrow sense, is defined as those pollutants that cross political boundaries due to natural forces, such as running water, wind velocity, atmospheric movements and ocean currents ([West L 2019](#)).

The appropriate and proportionate approach to manage the risk of transboundary (cross-border) harm is not only to request the State of origin to prevent transboundary harm

in line with Principle 21 of the Stockholm declaration, but also to emphasize the crucial role of international cooperation. Only through collective efforts and shared responsibilities can we effectively address and mitigate the risks posed by transboundary issues.

## 2.4 Policy and Legal Environment on Data and Information Sharing

The policy environment on data and information sharing of AU MS may be a challenge in information sharing. The seamless flow of data and information across borders, a cornerstone of the digital age, faces significant hurdles due to inconsistencies between domestic data protection laws in various African countries. The requirements set out under domestic data protection laws may challenge the realisation of cross-border data flows in Africa. ([Beyleveld, A. and Sucker, F., 2023.](#))

They understood the reasons behind the challenges in information sharing, such as requirements for consent and data localization. These requirements, often driven by data sovereignty and security concerns, are not without merit. However, it is crucial to recognize that they can also act as barriers to cross-border data and information flows, hindering the growth of digital services and innovation across borders ([Selby J 2017](#)).

Out of the 55 African countries, 35 have data protection laws, and three have draft laws; most of the data protection laws contain provisions on cross-border data and information flows. The provisions typically require data controllers to obtain consent before transferring personal data. In addition, some laws require data controllers to transfer personal data only to countries with adequate data protection safeguards ([Daigle, 2021](#)). Based on the above, the Africa CDC will be required to take steps to encourage data and information sharing across borders in the interest of public health.

Despite of the legal environment on data and information sharing, the application of digital health technology is growing at a rapid rate in Africa. In this regard, one of the functional pillars of the Africa CDC is the development and strengthening of information systems that support public health strategies in Africa. In this regard, Africa CDC's ultimately aims to

design and operationalize a continental data-sharing platform for AU Member States. To this end the Africa CDC developed guidelines and standards for health information exchange (HIE) that may be used across the continent, to guide sharing of data in a meaningful way across the continent and taking into consideration legal environment data and information sharing. The Africa CDC HIE document outlines principles and best practices for Health Information exchange 'Annexure 3: HIE Development Principles and Best Practice' on page 68 of the "African Union Health Information Exchange Guidelines and standards 2023". In brief the principles summarised include: **purpose & relevance**- only data that is necessary and relevant for a defined and specific purpose should be collected; **legitimacy, transparency & consent**- data controllers and processors should collect, process, and share data in a transparent and legitimate way, including obtaining consent from the data subject; **confidentiality & security**- data should be protected from loss, damage, destruction, and unauthorized access or use; **sharing & transfer** when data is transferred, it should be clear why it is being shared and who is involved. It should also be done in a way that keeps the data private and secure; **access** – regardless of where data is being stored, there should be restrictions and rules governing who is allowed to access it and for what purpose. Data subjects should have access to their own data; and **quality** - in order for data to be useful, it must be quality data. This means it needs to be accurate, complete, consistent, valid, unique, and timely.

## 2.5 Cross-border Surveillance in the Context of One Health

The One Health approach is a collaborative, multisectoral and transdisciplinary approach to attain optimal health outcomes for people, animals, plants, and their shared environment. This entails engagement and involvement of multiple sectors and stakeholders to enable early detection, prediction, coordination and collaboration. The One Health approach is fully supported by the quadripartite of WHO, WOA, the Food and Agriculture Organization (FAO) and the United Nations Environment Programme (UNEP).

This implies that surveillance data and



information are gathered from several sectors and are shared across disciplines, sectors, and stakeholders, especially in the inherently multi-sectoral nature of border stakeholders. The objectives of a coordinated system for disease surveillance are to identify disease events using information from all relevant sectors (One Health Sectors) and to share information among all sectors to support coordinated response, prevention, and mitigation measures, including cross-border health surveillance. This contributes to effective control of diseases as all stakeholders and critical actors get the correct information from surveillance for preparedness and response at the borders.

Globally, effective surveillance, detection, preparedness and response to disease outbreaks are usually affected by weak coordination. However, coordination using an incident management system (IMS) that

aligns with a One Health approach, with collaborations between government and non-governmental agencies, results in improved and better surveillance, preparedness and response outcomes for public health events ([Nwafor CD et al., 2019](#)). Further, one of the lessons learned in the West African EVD outbreak response in 2014-2016 was the effectiveness of the One Health approach ([Jacobsen et al. 2016](#); [Bell et al. 2016](#)).

## 2.6 Assessment of Cross-border Initiatives at PoE – SWOT Analysis

AU MS experts and key stakeholders conducted a SWOT analysis at several stages of the Strategic Framework development process from a continental stand point and the key issues noted in the SWOT analysis are shown in Table 1 below.

<p><b>Strengths</b></p> <ul style="list-style-type: none"> <li>• AU policies and legal instruments in place</li> <li>• REC policies, strategies, guidelines, and initiatives in place</li> <li>• Embracing the One Health approach across the continent</li> <li>• Inter-ministerial forums</li> <li>• The presence of strong civil societies and organisations</li> <li>• Presence of technical health partners</li> <li>• The presence of good research and academic institutions</li> <li>• Availability of PoE points</li> <li>• Availability of Electronic reporting systems such as DHIS2</li> <li>• Regional/national laboratory systems</li> </ul>	<p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Training and equipping immigration, security and port health officers and the rest of PoE Technical staff</li> <li>• Population mobility mapping to inform public health interventions</li> <li>• Development and signing of data-sharing Memorandum of Understanding (MoUs)</li> <li>• Existence of regional laboratory networks</li> <li>• Existence of bilateral cross-border MOUs and mechanisms</li> <li>• Presence and use of the DHIS 2 system</li> <li>• Presence of research centres</li> </ul>
<p><b>Weaknesses</b></p> <ul style="list-style-type: none"> <li>• Under-funding of cross-border health services</li> <li>• Inadequate capacity of the staff at PoE</li> <li>• Inadequacy or lack of equipment at PoE</li> <li>• Inadequate Infrastructure at PoE</li> <li>• Limited skills and capacities for identifying and responding to health threats at PoE</li> <li>• Informal border crossing points: un-manned and un-monitored</li> <li>• Cultural issues and language barriers</li> <li>• Inadequate/poor or no linkages between PoE and National Surveillance</li> <li>• Inadequate cross-border reporting and information sharing.</li> <li>• Low level of preparedness at PoE</li> <li>• Inadequate funding to sustain staff at PoE</li> <li>• Poor Sanitation and Hygiene and waste management at PoE</li> <li>• Inadequate collaborative efforts on One Health approach</li> <li>• Legal hurdles in data and information sharing</li> </ul>	<p><b>Threats</b></p> <ul style="list-style-type: none"> <li>• Political instability and insecurity</li> <li>• Porous informal borders</li> <li>• Low socioeconomic status and or economic opportunities may lead to cross-border displacement and risk of disease spread</li> <li>• Climate change emergencies (floods, drought, etc.) leading to cross-border displacement</li> <li>• Population flows/mobility across-borders putting pressure on healthcare facilities</li> <li>• None or poor compliance to bilateral agreements</li> <li>• The emergence and re-emergence of infectious diseases</li> <li>• Partners withdrawal without a transition plan.</li> </ul>

Table 1: SWOT Analysis

## 3.0 Strategic Pillars and Interventions

### Strategic approach

This continental strategic framework enhances coordination, collaboration, and timely information exchange for cross-border surveillance activities. It embraces the comprehensive One-Health approach involving multiple sectors and disciplines to effectively conduct cross-border health surveillance, detect diseases, and respond to outbreaks promptly. surveillance of public health events is essential for early identification, prevention, and response of infectious diseases and other public health events that can spread internationally across borders affecting multiple countries.

The framework has six strategic pillars aligned with the objectives outlined in section 1.4.1. Each “Strategic Pillar” has corresponding priority interventions aimed at achieving the objective. This framework’s strategic pillars and interventions are not reactive measures, but proactive steps to ensure our preparedness for future health events. They include:

### 3.1 Strengthen coordination, collaboration, governance, and financing for cross-border surveillance.

#### Strategic interventions

- i. Establish/strengthen multi-sectoral and multi-disciplinary coordination mechanisms, including cross-border health committees for improved collaboration, surveillance, and information sharing by leveraging on RISLNET and other relevant networks.
- ii. Promote cross-border collaborative response mechanisms within the IMS of MS. This collaborative approach can considerably improve our response to health events and emergencies crises.
- iii. Support the development of national strategies, frameworks, guidelines, and SOPs for cross-border surveillance to enhance emergency preparedness, readiness, and response to public health events and threats.
- iv. Support the development/strengthening of risk and capacity assessment frameworks,

including joint capacity, risk assessment, and preparedness plan development for POEs

- v. Support border health service integration into Joint Border Posts (JBP/One-Stop Border Posts (OSBP, under the Coordinated Border Management (CBM) system.
- vi. Advocate with policymakers and other key stakeholders, such as border officials, to promote coordinated border health services.
- vii. Support joint resource mobilization efforts and equitable allocation of available resources to implement cross-border surveillance
- viii. Ensure integration of cross-border surveillance into the national surveillance system.

### 3.2 Enhance capacities at PoE for prevention, early detection and response to public health threats

#### Strategic interventions

- i. Support the development and implementation of the IHR requirements for POE as per Annex 1(B) taking into consideration of border community in the context of ground crossing
- ii. Support developing and implementing relevant documents (SOPs, operational plans, guidelines, regulations. tools, public health emergency contingency plan etc ) to facilitate PoE operations and cross-border surveillance.
- iii. Support the capacity building of Border Health and other relevant agencies/ stakeholders through continuous learning, re-tooling, knowledge exchange, communities of practice (COP), sharing of best, training, and establishment/strengthening of professional networks.
- iv. Support conducting simulation exercises to test plans and improve capacity for prevention, preparedness, early detection, readiness, and response to public health threats.
- v. Provide infrastructure, equipment, Human resource and essential

- mechanisms for implementing border health activities.
- vi. Develop standardized guidelines for establishing/improving infrastructure, equipment, and logistics to improve service provision at PoE.
- vii. Support strengthening of infection, prevention, and control (IPC) at PoE, including the surrounding environment, facilities, waste management, water, food, and any areas that may introduce infection and contamination

### **3.3 Strengthen mechanisms for cross-border public health data and information sharing and operational research**

#### **Strategic interventions**

- i. Support harmonization and interoperability of standardized reporting protocols and tools for data collection, including case definitions, reporting formats and surveillance systems using common variables.
- ii. Support the development and utilization of digital technologies, standardized data collection, sharing platforms, and tools for real-time data transmission and analysis across-borders, including cases and contacts.
- iii. Support the development, harmonization and implementation of data and information-sharing policies and guidelines, including data on mobile populations at Continental, regional, and or bilateral levels.
- iv. Integrate operational research into surveillance, preparedness and response activities to inform policy decisions on border health.
- v. Support mapping of barriers, enablers, best practices and lessons learnt for data and information sharing to inform interventions and implementation

### **3.4 Improve cross-border surveillance, and laboratory systems at PoE**

#### **Strategic Interventions**

- i. Develop/strengthen surveillance and early warning systems ( event-based surveillance including community-based surveillance) to detect signals and indicators of potential public health events.

- ii. Establish/strengthen diagnostic capacities at PoE by ensuring access to diagnostic service and linkages with referral facilities.
- iii. Support conducting risk assessment at PoE and surrounding communities.
- iv. Strengthen and promote multisectoral information sharing and knowledge management.

### **3.5 Improve cross-border risk communication and community engagement**

#### **Strategic Interventions**

- i. Develop/strengthen mechanisms for risk communication and community engagement (RCCE) through community informants, RCCE champions, etc and establish rumour tracking systems for border health.
- ii. Support the development of RCCE plans for public health events at the border , including for mobile populations.
- iii. Support developing and providing Information Education and Communication (IEC) materials for public health events.

### **3.6 Strengthen monitoring and mapping of population mobility patterns and dynamics to enhance the evidence base for communicable disease prevention, detection and response.**

#### **Strategic interventions**

- i. Support mapping of population mobility to guide surveillance and other public health actions .in collaboration with key stakeholders.
- ii. Assess national and local capacities and support joint mobility and disease transmission data analysis.
- iii. Support integration of population mobility data in the national surveillance dashboard/ systems for public health information sharing
- iv. Support the utilisation of information generated through human and animal population mobility mapping for prevention, preparedness and response activities.

## 4.0 Institutional Arrangements, Stakeholders, and Financial Mechanisms

This chapter examines the institutional arrangements, stakeholders' partnerships, collaboration, and financing mechanisms for this continental strategic cross-border surveillance framework. Successful implementation of this framework is contingent upon regional agreement and sustained commitment to the Africa CDC cross-border agenda.

### 4.1 Institutional arrangements

Implementing this strategic cross-border surveillance and information-sharing framework is predicated on existing national and regional frameworks. AU MS will implement this framework with support of the Africa CDC. In this regard, Africa CDC will work with respective RECs at the regional level and AU MS at the National level. The AU MS will be expected to adapt & adopt and incorporate the framework interventions into their national plans.

### 4.2 Stakeholders, Partnerships and Collaboration

Partnerships and collaboration with stakeholders are encouraged to improve cross-border surveillance and the capacity to prevent, detect, and respond to public health risks. Stakeholders are encouraged to contribute to implementing this framework based on their mandates, strengths, capacities, resources and experiences. It is, therefore, essential to have clearly defined roles for the stakeholders, as this ensures that (i) obligations based on capacity as well as areas of influence are clear, (ii) Clear guidelines are developed for stakeholder operations, (iii) Partnerships are seen to generate results that are of practical value to the implementation of the framework. Several stakeholders have been identified and will be actively engaged in implementing the Strategic framework.

Some of the key stakeholders involved include AU MS, RECs, development partners, technical partners, international organisations, the private sector, civil society organisations, multilateral and bilateral organisations, research institutions, academia, etc. The stakeholder involvement should embrace the One-Health approach and the multi-hazard perspective.

Specific roles and responsibilities of these stakeholders are highlighted in the table below.

### 4.3 Mechanism of Financing and Sustainability

The successful implementation of this cross-border surveillance strategic framework will depend on the commitment and support of all stakeholders in providing the required resources, including human, material and financial resources. It will leverage on already existing mechanisms and also utilize digital systems to undertake meetings and reduce costs.

Each AU Member State is equally encouraged to develop mechanism for mobilization of resources to implement the activities outlined in this framework. Additionally, resources can be mobilized from other key stakeholders, including the AU funding, development partners, and foundations.

Stakeholders	Roles and responsibilities
AU Commission	<ul style="list-style-type: none"> <li>• Undertake leadership and oversight role of Africa CDC</li> <li>• Advocate for, and get buy-in from AU MS to adopt the strategy</li> <li>• Support resource mobilisation for the implementation of the framework</li> </ul>
Africa CDC	<ul style="list-style-type: none"> <li>• Oversee the implementation of the strategy</li> <li>• Support the development and application of legal frameworks to enhance information and data sharing among AU MS</li> <li>• Periodically update the AU Commission on the implementation status of the strategy</li> <li>• Provide technical support to MS on the implementation of the strategic framework</li> <li>• Advocacy and resource mobilization for implementation of the strategic interventions</li> <li>• Guide Member states in implementation monitoring and evaluation of the Strategic Framework.</li> <li>• Africa CDC will develop guideline to define the type of data, and information to be shared</li> <li>• Africa CDC To go beyond Technical and get involved other activities</li> </ul>
Members States: Ministries of Health	<ul style="list-style-type: none"> <li>• Adapt the strategic framework and incorporate it into the national surveillance systems and national plans</li> <li>• Guide in the implementation of the strategic interventions in their respective countries</li> <li>• Provide the required infrastructure, equipment, and logistical support for implementation of the activities outlined in the framework</li> <li>• Support provision of data for planning and decision making</li> <li>• Support resource mobilization efforts for implementation of the strategic framework</li> <li>• Establish and maintain cross-border forums with neighbouring countries</li> <li>• MOH should collect surveillance data at POEs for planning and decision</li> </ul>
Member States: Other relevant ministries, departments and agencies (MDAs) including MOH, Animal Health, Environment and Meteorology	<ul style="list-style-type: none"> <li>• Provide necessary infrastructure to support cross-border surveillance collaboration and information sharing</li> <li>• Provide adequate human, material, and financial resources to support the implementation of the framework</li> <li>• Support provision of data for planning and decision-making</li> <li>• Ensure the implementation of the strategy through simulation exercises, Interaction Action Review(IAR) and after-action review (AAR)</li> <li>• Support cross-border forums with neighbouring countries</li> <li>• Support resource mobilization efforts for implementation of the strategic framework</li> <li>• Undertake monitoring and evaluation of the implementation of the strategic framework in liaison with Africa</li> <li>• Each Ministry must have its own M&amp;E plan</li> <li>• Must include Meteorology Department in the partnership</li> <li>• Provide the required human resource and infrastructure</li> <li>• Develop data sharing policies</li> </ul>
Regional Economic Communities (UMA, COMESA, CEN-SAD, EAC, ECCAS, ECOWAS, IGAD, SADC, etc)	<ul style="list-style-type: none"> <li>• Support MS in the implementation of the framework in their respective regions</li> <li>• Provide technical expertise and guidance</li> <li>• Foster collaboration, coordination and information sharing among MS</li> <li>• Resource Mobilization</li> <li>• Capacity building</li> <li>• Harmonization of standards and operation procedures</li> <li>• Advocacy for Resource Mobilization</li> <li>• Be part of the TWG on cross border surveillance</li> </ul>
Development and technical partners including but not limited to UN agencies (WHO, IOM, FAO, US-CDC, UNEP, WOA, UK-PHRS, IMO, ECSA-HC UNICEF, World Bank, ICAO, etc.), Private Sector Institutions, and Civil Society Organizations	<ul style="list-style-type: none"> <li>• Provide technical and operational support for implementing the strategic interventions in this framework, (this includes capacity building, infrastructure development, plans, procedures, etc.)</li> <li>• Provide financial support and contribute to resource mobilization efforts for implementation of the strategic framework.</li> <li>• Advocacy and Resource Mobilization</li> <li>• Participation in M&amp;E</li> </ul>
Universities and research organizations/institutions	<ul style="list-style-type: none"> <li>• Provide evidence-based data and information to guide innovative and effective policies for implementation of the strategy.</li> <li>• Thematic research / Research</li> </ul>

Table 2: Roles and responsibilities of the stakeholders in implementing the cross-border surveillance and information-sharing strategic Framework



## 5.0 Monitoring and Evaluation

The Africa CDC monitors and evaluates (M&E) its projects and programmes as a shared responsibility at different levels and by various stakeholders. This helps to document desired changes in the context Theory of Change. It is also undertaken to document best practice models and lessons learnt for adaptation in other settings. Therefore, various stakeholders on the continent will actively contribute to the M&E of cross-border surveillance, collaboration, coordination, and information-sharing strategies.

### 5.1 Theory of Change

The Theory of Change (ToC) for the Cross-Border Surveillance and information sharing Strategic framework is foundational in articulating the logical sequence of actions required to achieve the strategy's objectives. It begins by identifying the primary challenges in cross-border health surveillance, such as inadequate coordination, limited capacity at Points of Entry (PoEs), and insufficient data-sharing mechanisms.

The ToC further outlines the necessary strategic interventions, including strengthening coordination mechanisms, enhancing technical and infrastructural capacities, and promoting effective data and information sharing.

By linking these interventions to specific outputs, such as improved governance structures and enhanced diagnostic capacities, the ToC establishes a clear pathway to achieving the desired outcomes, including strengthened cross-border surveillance and timely information sharing among AU Member States.

Ultimately, the ToC supports the overarching goal of strengthening public health security across Africa, aligning with Africa CDC's Strategic Plan and the broader objectives of the AU Agenda 2063.

Through continuous monitoring and evaluation, the ToC ensures that the strategy remains responsive and adaptive to emerging public health challenges, thereby enhancing its effectiveness and sustainability

The Theory of Change for the Cross-Border Surveillance Strategic framework is illustrated in figure 4

### 5.2 Monitoring and Evaluation Approach

The monitoring and evaluation of this Strategic Framework will be anchored and supported by the M&E system/framework used by Africa CDC to measure the level of achievement of agreed strategies and targets. A programmatic approach will be used. Corresponding objectives will be identified to guide intervention programming, implementation, monitoring, and evaluation. The six program areas identified are outlined in Chapter 3 based on the strategic pillars.

Monitoring and evaluating will be structured along these six program areas to gather evidence to influence and inform decision-making to improve, reorient, or redesign strategies, interventions, or policies. It will also inform decisions about more comprehensive organizational strategies or management structures and allocation of available resources and decisions by national, regional policy and continental makers, governance organs of Africa CDC, funding agencies, and other stakeholders.

### 5.3 Monitoring

To provide management and the main stakeholders with evidence and indications of the extent of progress and performance against strategic framework objectives, strategic pillars, respective thematic areas, strategic interventions, and expected results, as well as efficiency in the use of allocated resources, Africa CDC and the respective stakeholders will undertake continuous monitoring through the systematic collection of data on the specified indicators.

Monitoring will, therefore, be a continuous undertaking anchored on and guided by the Africa CDC M&E system. Various tools will be used to continuously monitor progress in implementing the prioritized strategic interventions in the seven program/thematic areas.



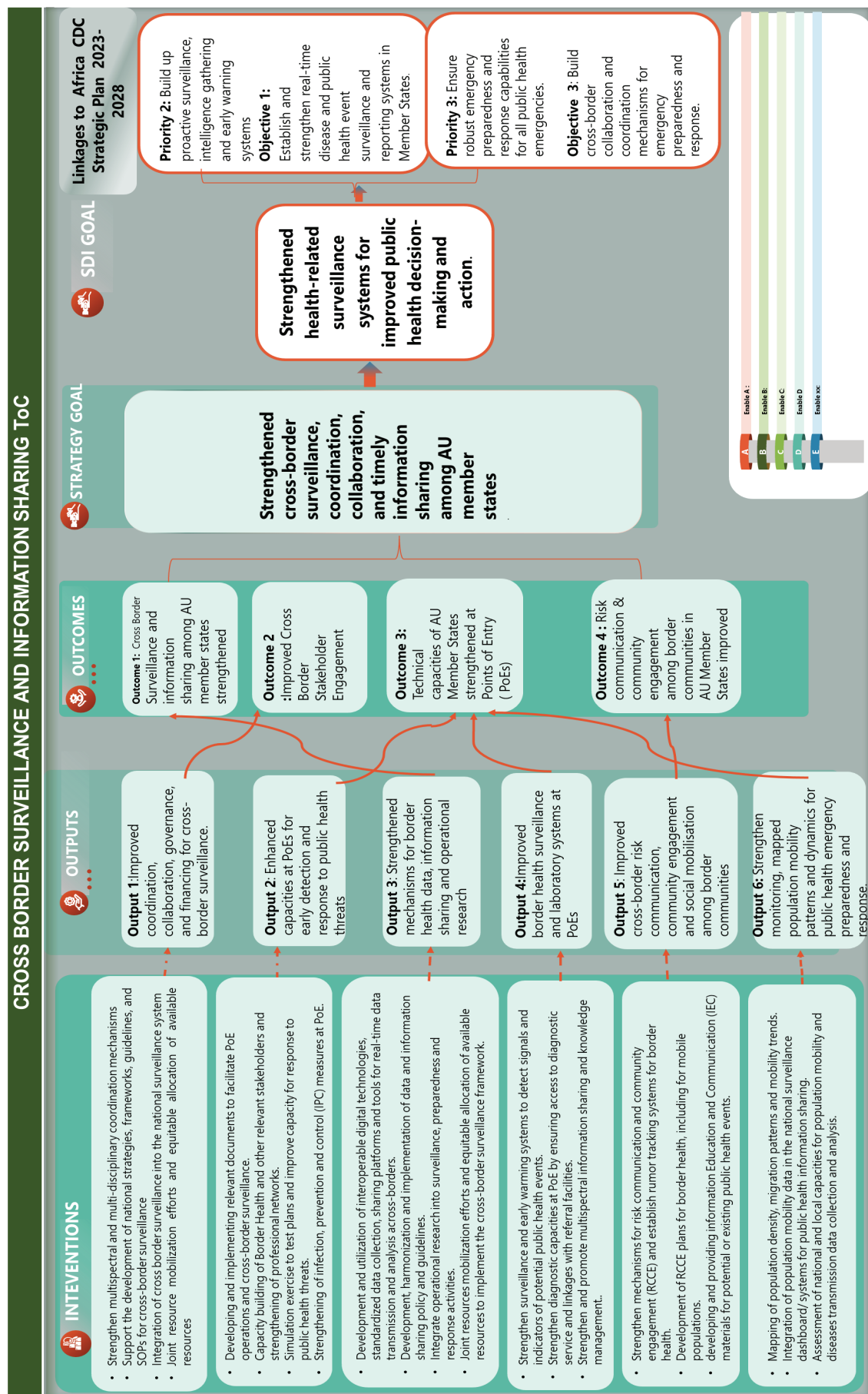


Figure 4: Cross border surveillance and information sharing Theory of Change (ToC)

## 5.4 Evaluation

Evaluation is the systematic and objective assessment of an ongoing or completed project, program or policy, including its design, implementation, and results, to determine its worth/value in terms of the relevance of the objectives, the efficacy of design/strategies and implementation, the efficiency of resource use, outcomes and impacts generated during the strategic period as well as the sustainability of the interventions and benefits of the strategic intervention. Evaluation of the Strategic framework will measure the extent to which changes in AU Member States cross-border surveillance, coordination, collaboration, and information sharing can be attributed to the activities of the Africa CDC and AU MS at output, outcome, and impact levels.

To effectively evaluate, baseline data on the key indicators will be determined. The baseline data will be compared against data from the mid-term and end-term evaluations to assess the extent to which the strategy has achieved the desired changes on the African Continent. To this end, Africa CDC will also conduct periodic independent, high-quality assessments of its performance against its goals and desired outcomes. These evaluations will also serve as a vehicle for internal organizational learning. Such assessment will be employed to evaluate the work of the African CDC and how it refines its cross-border surveillance programmes and redirects its resources.

In this regard, Africa CDC will coordinate Implementation and M&E activities at the continental level. It is, therefore, necessary to strengthen the capacity of the Africa CDC Cross-border Programme office. Nevertheless, Africa CDC will endeavour to strategically collaborate and create partnerships in implementing this strategic framework in the cross-border surveillance, coordination, collaboration and Information sharing in line with the Africa CDC Road Map.

The following will be the durations when the Evaluation will be undertaken

- i. Mid-term Review; and
- ii. End Term Evaluation

## 5.5 Monitoring and Evaluation Plan

Monitoring and evaluating of this strategic framework will generally be guided by indicators identified within the output and outcome range for each strategic intervention/expected result under each strategic pillar of this Strategic framework (*find in Annex 1*). The data sources and frequency of data collection for the identified indicators will be indicated in a detailed M&E Plan.

## 5.6 Reporting, Communication and Feedback Mechanisms

The M&E system will facilitate the collection, processing and storage of routine and non-routine data through standardized protocols and procedures. Monitoring and reporting on the progress of implementation of the Africa CDC Strategic framework on cross-border surveillance, coordination, collaboration and Information sharing will be carried out at three (3) levels, including:

- i. Strategic/policy level at the continental level in line with the Africa CDC critical organs and National level;
- ii. The operational level at the National and PoE level; and
- iii. Beneficiary/Stakeholder level.

The Africa CDC will annually produce a performance report on the overall implementation of the Strategic framework, highlighting the key achievements and milestones. The implementation plan and the M&E plan will guide monitoring, evaluation and reporting.

In addition to periodic progress reports, special case studies and beneficiaries' testimonies/success stories will be regularly identified, documented and disseminated using various communication mediums, including electronic newsletters, web postings, and stories in both print and electronic media.

## Glossary – Definition of key terms

**A border:** A line separating the land territory or maritime zones of two States or subparts of States. It can also refer to a region found at the margin of settled and developed territory. A border is a line, limit, or delimiting geographic feature that separates one country, State, province, etc., from another. The border between two countries or regions is the dividing line between them.

**A pandemic:** An epidemic occurring worldwide or over a vast area, crossing international borders and usually affecting many people.

A pandemic is an epidemic spread over several countries or continents, usually affecting many people. A point of entry is an official location where goods or people enter a country or region. It is typically a designated customs area where shipments are inspected and cleared by the relevant authorities. The point of entry can be an airport, seaport, or ground crossing.

**Airport:** means any airport where international flights arrive or depart

**Alert:** An indirect early warning sign of a potential public health event occurring in a community under Surveillance. Alerts must be investigated further and verified as to whether they represent a true event or not.

**An international region:** “a limited number of states linked by a geographical relationship and a degree of mutual interdependence.”

**Border control:** An activity carried out at a border in response exclusively to an intention to cross that border, regardless of any other consideration. It covers: (a) checks carried out at authorised border crossing points to ensure that persons, their vehicles and the objects in their possession may be authorised to enter the territory of the Member States or authorised to leave it; and (b) surveillance of borders outside authorised border crossing-points and fixed hours, in accordance with this regulation, to prevent persons from bypassing border crossing-points in order to avoid checks and enter or leave the territory of Member States illegally.

**Border crossing point:** Any crossing point at land, sea or air borders authorised by the competent authorities for crossing external borders.

**Border health:** The area of public health that focuses on mobile populations and the communities they visit before, during, and after travel.

**Border management:** The administration of measures related to the authorised movement of persons (regular migration) and goods whilst preventing unauthorised movement of persons (irregular migration) and goods, detecting those responsible for smuggling, trafficking and related crimes and identifying the victims of such crimes or any other person in need of immediate or longer-term assistance and (international) protection.

**Border post:** Used to refer to the whole controlled area for cross-border clearance; used inter-changeably with border crossing point

**A competent/responsible health authority:** A person responsible for implementing and applying health measures under the Health Regulations.

**A community of practice (COP):** A group of people who share a common concern, a set of problems, or an interest in a topic and come together to fulfil individual and group goals.

**Coordinated Border Management (CBM):** A “national and international coordination and cooperation among all the relevant authorities and agencies involved in the protection of the interests of the state at the border to establish effective, efficient and coordinated border management, in order to reach the objective of open, but well controlled and secure borders”.

**Cross-border Health Surveillance, collaboration, and information sharing:** A collaborative Surveillance and Information sharing between countries sharing common borders.

**Cross-border migration:** A process of movement of persons across international borders.

**The disability-adjusted life year (DALY):** This measures overall disease burden expressed as the number of years lost due to ill-health, disability or early death. It is calculated as the sum of the **Years of Life Lost (YLL)** due to premature mortality and the **Years Lost due to Disability (YLD)** for people living with a health condition or its consequences.

**Designated point of entry:** These include airports, ports and certain ground crossings designated by States Parties to develop the capacities outlined in Annex 1 of the International Health Regulations (2005). These capacities include access to appropriate medical services (with diagnostic facilities); services for the transport of ill persons; trained personnel to inspect ships, aircraft and other conveyances; maintenance of a safe environment; programme and trained personnel for the control of vectors and reservoirs; a public health emergency contingency plan; capacities for responding to events that may constitute a public health emergency of international concern.

**Disease:** An illness or medical condition, irrespective of origin or source, which presents or could significantly harm animals, humans and plants.

**Emergency:** The State where standard procedures are suspended and extraordinary measures are taken to avert a disaster.

**Epidemic:** An increase, often sudden, in the number of cases of a disease above what is normally expected in that population in that area.

**Epidemiological Surveillance:** The collection, recording, analysis, interpretation and dissemination of data on communicable diseases and related special health issues.

**Event:** Under the IHR (2005) (Article 1), an event is defined as ‘a manifestation of disease, or an occurrence that creates a potential for disease’ (with particular reference to public health events of international concern (PHEIC); an emergency incident or occurrence. An event may be insignificant or a significant occurrence, planned or unplanned (e.g. extreme weather event or mass gathering), that may impact the safety and security of communities. NB: ‘Event’ and ‘incident’ are often used interchangeably.

**Event-based Surveillance (EBS):** An organised collection, monitoring, assessment, and

interpretation of mainly unstructured ad hoc information regarding health-related events or risks that may represent an acute risk to human, animal, plant, or environmental health. EBS complements existing indicator-based Surveillance, and as part of epidemic intelligence, both surveillance types improve a country’s Early warning alert and response (EWAR) capacity. The Framework for Event-based Surveillance offers guidance to health practitioners seeking to implement EBS in their countries.

**Globalisation:** The “intensification of economic, political, social, and cultural relations across borders. Several factors push globalisation, the most important among which is technological change.”

**Ground Crossing:** A land entry point in a State Party, including one utilised by road vehicles and trains

**International Health Regulations (2005):** Binding International legal instrument in 196 countries. The regulations aim to help the international community prevent and respond to acute public health risks that have the potential to cross borders and threaten people worldwide.

**Integrated Border Management (IBM):** A comprehensive approach to border control and security involving coordination, cooperation, and collaboration among various government agencies and stakeholders in managing and securing national borders

**A Joint Border Post (JBP):** A border crossing facility where two or more neighboring countries collaborate to manage and operate border control activities jointly. Unlike an OSBP, a JBP may not necessarily involve the physical integration of customs and immigration facilities. The primary goal of a joint border post is to promote cross-border cooperation, information sharing, and coordination among border control agencies to enhance border security, combat transnational crime, and facilitate legitimate trade and travel.

**Joint External Evaluation:** A voluntary, collaborative, and multi-sectoral process that assesses a country’s capacities to prevent, detect, and rapidly respond to public health risks.

**Migrant:** An umbrella term that is not



defined under international law. It reflects the common lay understanding of a person who moves away from their usual residence, whether within a country or across an international border, temporarily or permanently, and for various reasons. The term includes several well-defined legal categories of people, such as migrant workers, persons whose particular types of movements are legally defined, such as smuggled migrants, and those whose status or means of movement are not explicitly defined under international law, such as international students.

- Mobile populations are not migrants, such as nomadic populations, travellers, or host communities.
- The term “migrant” is inclusive of short- and long-term migrant workers – both documented and undocumented, stranded migrants, returning migrants, smuggled migrants, victims of human trafficking and populations who are displaced across borders or within a State, including internally displaced persons (IDPs), asylum seekers and refugees.

**Multi-sectoral:** Participation of more than one sector working together on a joint programme or response to an event (for example, a joint investigation by public health and law enforcement).

**One health:** An approach to addressing a shared health threat at the human-animal-environment interface based on collaboration, communication, and coordination across all relevant sectors and disciplines. It aims to achieve optimal health outcomes for both people and animals. A One-Health approach applies to the local, regional, national, and global levels.

**A One-Stop Border Post (OSBP):** A border crossing facility where customs and other border control agencies from two neighbouring countries operate under one roof or in close proximity. The primary objective of an OSBP is to enhance efficiency, reduce clearance times, and minimise trade barriers at the border. OSBPs are typically established through bilateral or regional agreements between neighbouring countries to promote cross-border cooperation and harmonisation of border control procedures.

**Outbreak:** The occurrence of more cases than

expected in a defined geographical area or time.

**Point of entry (PoE):** A passage for international entry or exit of travellers, baggage, cargo, containers, conveyances, goods and postal parcels, as well as agencies and areas providing services to them on entry or exit;

**Port:** A seaport or a port on an inland body of water where ships on an international voyage arrive or depart.

**Preparedness:** The ability of governments, professional response organisations, communities and individuals to anticipate, detect and respond effectively to and recover from the impact of likely, imminent or current health emergencies, hazards, events or conditions.

**Public health Emergencies:** A public health emergency is *any adverse event (natural or artificial) that compromises the population's health and has the potential to cause widespread damage*. Public health emergencies take many forms, such as *pandemics, natural disasters, or other mass-casualty events*.

**Public Health Emergency of International Concern (PHEIC):** An extraordinary public health event that constitutes a public health risk to other States through the international spread of disease and potentially requires a coordinated international response.

**Public Health Risk:** The likelihood of an event that may adversely affect the health of human populations, with an emphasis on one that may spread internationally or present a severe and direct danger.

**Public health threats/events:** Events or disasters, either biological, chemical or radiological, that pose a threat to human health.

**Refugee (UNHCR definition):** A refugee has been forced to flee conflict or persecution and has crossed an international border to seek safety. They cannot return to their country without risking their lives or freedoms. A migrant can return home without risking their life or freedom. The movement is understood to be voluntary. A refugee cannot.

**Regional integration:** When countries enter a regional agreement to enhance regional cooperation through regional structure and rules.

**Regionalism:** Processes of the governments and peoples of two or more states to establish voluntary associations and to pool together resources (material and nonmaterial) in order to create standard functional and institutional arrangements.

**Rumors:** Refer to unverified/ unsubstantiated or speculative information that spreads rapidly among a population, often causing confusion, anxiety, and mistrust. Rumours exacerbate the perception of risk, hinder effective communication efforts, and undermine public trust in authorities or official sources of information. Promptly and transparently addressing rumours with accurate information is crucial in risk communication to mitigate their negative effects and maintain public confidence.

**Sanitation:** Refers to practices, services, and infrastructure that promote and maintain clean and hygienic conditions in living environments, public spaces, and communities. It encompasses various aspects such as the safe disposal of human waste, provision of clean water, promotion of good hygiene practices, management of wastewater and solid waste, and the development of appropriate infrastructure to support these efforts. Effective sanitation is essential for preventing the spread of diseases, protecting public health, and promoting overall well-being.

**A Screening Point:** A location (at the ground crossing, airport, or seaport) where border health officials stop persons who want to enter the state for inspection and clearance.

**Surveillance:** The systematic, ongoing collection, collation and analysis of data for public health purposes and the timely dissemination of public health information for assessment and public health response as necessary. Both disease surveillance and cross-border disease surveillance involve monitoring and managing health risks; disease surveillance focuses on tracking diseases within a specific population or area, whereas cross-border disease surveillance specifically addresses health risks that span international borders and involves coordination and collaboration between multiple countries.

**Zoonotic Diseases or Zoonosis:** An infectious disease that can be shared between animals and people.



# References

- Africa CDC (2019) Africa CDC Annual Report 2017. <https://africacdc.org/download/africa-cdc-annual-report-2017/>
- Africa CDC (2023) Africa CDC Strategic Plan 2023-27 [file:///C:/Users/user/Downloads/Africa-CDC\\_strategic-plan\\_August-2023-1\\_Final%20\(1\).pdf](file:///C:/Users/user/Downloads/Africa-CDC_strategic-plan_August-2023-1_Final%20(1).pdf)
- Africa CDC (2023) Road Map for the Strengthening cross-border surveillance, coordination, collaboration and Information Sharing
- Africa CDC (2023). Event based Surveillance Training Manual. First Edition [file:///C:/Users/user/Downloads/Africa-CDC-Event-Based-Surveillance-Training-Manual\\_English-First-Edition-2023-min-1.pdf](file:///C:/Users/user/Downloads/Africa-CDC-Event-Based-Surveillance-Training-Manual_English-First-Edition-2023-min-1.pdf)
- Africa CDC(2017) Africa CDC Strategic plan. <file:///C:/Users/user/Downloads/Africa-CDC-Strategic-Plan-2017-2021.pdf>
- Alimi, Y.& Wabacha, J. (2023). Strengthening coordination and collaboration of one health approach for zoonotic diseases in Africa. One Health Outlook, 5(1).<https://doi.org/10.1186/s42522-023-00082-5>
- Altizer S, Ostfeld RS , Johnson P.T. J, Kutz S, and Harvell C.D (2013) Climate Change and Infectious Diseases: From Evidence to a Predictive Framework. Vol 341, Issue 6145. pp. 514-519. DOI: [10.1126/science.1239401](https://doi.org/10.1126/science.1239401)
- Amukele, T. (2017). Africa CDC: Establishing integrated Surveillance and laboratory networks for rapid disease detection and response, control, prevention, and clinical care in Africa. African Journal of Laboratory Medicine, 6(1). <https://doi.org/10.4102/ajlm.v6i1.638>
- Andrianaivonirina(2020). Chapter 14- Health and Immigration. ISBN 978-92-9068-841-9 (Print) ISBN 978-92-9068-842-6 (PDF). 2020 International Organization for Migration (IOM). <https://publications.iom.int/system/files/pdf/africa-migration-report.pdf>
- Arale A, Lutukai M, Mohamed S, Bologna L, Stamidis KV. Preventing Importation of Poliovirus in the Horn of Africa: The Success of the Cross-border Health Initiative in Kenya and Somalia. Am J Trop Med Hyg. 2019 Oct;101(4\_Suppl):100-106. doi: 10.4269/ajtmh.19-0040. PMID: 31760979; PMCID: PMC6776092.
- AU (2015) AU Agenda 2063: “The Africa We Want”. Final edition published in 2015 © African Union Commission ISBN: 978-92-95104-23-5. [https://au.int/sites/default/files/documents/33126-doc-framework\\_document\\_book.pdf](https://au.int/sites/default/files/documents/33126-doc-framework_document_book.pdf)
- AU (2016) Africa Health Strategy 2016- 2030. [https://au.int/sites/default/files/documents/24098-au\\_ahs\\_strategy\\_clean.pdf](https://au.int/sites/default/files/documents/24098-au_ahs_strategy_clean.pdf).
- AU (2016) Catalytic Framework to End AIDS, TB, and Eliminate Malaria in Africa by 2030AU-IBAR (2015) The Livestock Development Strategy for Africa (LiDeSA) 2015 – 2035. Nairobi, Kenya <http://repository.au-ibar.org/bitstream/handle/123456789/540/2015-LiDeSA.pdf?sequence=1&isAllowed=y>
- AU(2018) Agreement for the Establishment of the African Continental Free Trade Areas( AfCFTA) <https://au-afcfta.org/wp-content/uploads/2022/06/AfCFTA-Agreement-Legally-scrubbed-signed-16-May-2018.pdf>
- AU-IBAR (2015) The Livestock Development Strategy for Africa 2015-2035. Nairobi, Kenya. ISBN: 978-9966-077-30-1. <http://repository.au-ibar.org/bitstream/handle/123456789/540/2015-LiDeSA.pdf?sequence=1&isAllowed=y>
- AU-IBAR (2019) The Animal Health Strategy for Africa 2019-2035. Nairobi, Kenya. ISBN: 978-9966-077-38-7 [http://repository.au-ibar.org/bitstream/handle/123456789/539/Animal Health Strategy 2019 - 2035.pdf?sequence=1&isAllowed=y](http://repository.au-ibar.org/bitstream/handle/123456789/539/Animal_Health_Strategy_2019_-_2035.pdf?sequence=1&isAllowed=y)
- Azevedo MJ(2017). The State of Health System(s) in Africa: Challenges and Opportunities. Historical Perspectives on the State of Health and Health Systems in Africa, Volume II. 2017 Feb 3:1–73. doi: 10.1007/978-3-319-32564-4\_1. PMCID: PMC7123888.
- Bakari, E., & Frumence, G. (2013). Challenges to the implementation of International Health Regulations (2005) on Preventing Infectious Diseases: experience from Julius Nyerere International Airport, Tanzania. Global Health Action, 6(1), 20942. <https://doi.org/10.3402/gha.v6i0.20942>

Baker, R. F., Mahmud, A. S., Miller, I. F., Rajeev, M., Rasambainarivo, F., Rice, B. L., Takahashi, S., Tatem, A. J., Wagner, C. E., Wang, L., Wesolowski, A., & Metcalf, C. J. E. (2021). Infectious disease in an era of global change. *Nature Reviews Microbiology*, 20(4), 193–205. <https://doi.org/10.1038/s41579-021-00639-z>

Bell BP, Damon IK, Jernigan DB, et al. Overview, Control Strategies, and Lessons Learned in the CDC Response to the 2014–2016 Ebola Epidemic. *MMWR Suppl* 2016;65(Suppl-3):4–11. DOI: <http://dx.doi.org/10.15585/mmwr.su6503a2>

Bett B; Randolph D; and McDermott J. 2020. Africa’s growing risk of diseases that spread from animals to people. Africa Portal. First published online on April 21, 2020. <https://www.africaportal.org/features/africas-growing-risk-diseases-spread-animals-people> or <https://www.ifpri.org/blog/africas-growing-risk-diseases-spread-animals-people>

Beylvelde, A. and Sucker, F., 2023. Regulating Cross-border Data Flows Under the AfCFTA Protocol on Digital Trade: The What, Why, How, Where, and When. Why, How, Where, and When (May 3, 2023). <file:///C:/Users/user/Downloads/SSRN-id4437331.pdf>

Church, D. L. (2004). Major factors affecting the emergence and re-emergence of infectious diseases. *Clinics in Laboratory Medicine*, 24(3), 559–586. <https://doi.org/10.1016/j.cll.2004.05.008>

Daigle, Brian(2021) “Data Protection Laws in Africa: A Pan-African Survey and Noted Trends.” *Journal of International Commerce and Economics*, February 2021. <https://www.usitc.gov/journals>

Duarte-Davidson, R. Orford, S. Wyke, M. Griffiths, R. Amlôt, R. Chilcott, Recent advances to address European Union Health Security from cross-border chemical health threats, *Environment International*, Volume 72, 2014, Pages 3-14, ISSN 0160-4120, <https://doi.org/10.1016/j.envint.2014.01.003>. (<https://www.sciencedirect.com/science/article/pii/S0160412014000075>)

EAC (2018) one health Regional Risk and Crisis Communication Strategy (2018/2019 - 2022/2023). (2021). East African Community. <https://www.eac.int/documents/category/regional-national-strategies-and-plans>

EAC (2022) Regional Data Collection Survey and Piloting of Proposed Activities Aimed for the Prevention of Infectious Disease at Border Posts (BPs) in the EAC - Final Report. March 2022. Japan International Cooperation Agency (JICA), TA Networking Corp. <https://openjicareport.jica.go.jp/pdf/12369088.pdf>

Ekmekci PE (2016) An Assessment of Coherence Between Early Warning and Response Systems and Serious Cross-border Health Threats in the European Union and Turkey. *Disaster Med Public Health Prep*. 2016 Dec;10(6):883-892. doi: 10.1017/dmp.2016.63. Epub 2016 Aug 11. PMID: 27511433; PMCID: PMC5266510.

EU (2020) Cross-border threats to health EU action on preparedness and response. European Parliamentary Services (EPRS).Members service Authored by Nicole Scholtz. [https://www.europarl.europa.eu/RegData/etudes/BRIE/2020/646123/EPRS\\_BRI\(2020\)646123\\_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/BRIE/2020/646123/EPRS_BRI(2020)646123_EN.pdf)

Findlater, A., & Bogoch, I. I. (2018). Human mobility and the global spread of infectious diseases: A focus on air travel. *Trends in Parasitology*, 34(9), 772–783. <https://doi.org/10.1016/j.pt.2018.07.004>

Flahaux, M., & De Haas, H. (2016). African migration: trends, patterns, drivers. *Comparative Migration Studies*, 4(1). <https://doi.org/10.1186/s40878-015-0015-6>

Gallina, S. (2023). Preparing Europe for future health threats and crises: the European Health Union. *Eurosurveillance*, 28(5). <https://doi.org/10.2807/1560-7917.es.2023.28.5.2300066>

Hussien HA (2023). Brief review on Ebola virus disease and one health approach. College of Veterinary Medicine, Department of One Health Tropical Infectious Disease, Jigjiga University, P.O. Box: 1020, Jigjiga, Ethiopia. Published by Elsevier Ltd. <https://doi.org/10.1016/j.heliyon.2023.e19036>

IOM (2019) Population mobility mapping. <https://www.iom.int/sites/g/files/tmzbd1486/files/documents/IOM-Migration-Health-Population-Mobility-Mapping-Infosheet.pdf>

IOM (2020) Africa Migration Report. 2019/“Jz” Rabibisoa Mickaia. <https://publications.iom.int/system/files/pdf/africa-migration-report.pdf>

IOM (2021)- Health Border Mobility Management Framework: A Framework to Empower Governments and Communities to Prevent, Detect and Respond to Public Health Threats along the Mobility Continuum, 1211 Geneva 19, Published and edited by IOM. ISBN 978-92-9268-032-9 ([file:///C:/Users/user/Downloads/HBMM-Framework-2020\\_0.pdf](file:///C:/Users/user/Downloads/HBMM-Framework-2020_0.pdf))

IOM (2023) IOM Ghana informs border communities across the country on preparedness against public health emergencies. <https://rodakar.iom.int/news/iom-ghana-informs-border-communities-across-country-preparedness-against-public-health-emergencies>

Jacobsen KH, Aguirre AA, Bailey CL, Baranova AV, Crooks AT, Croitoru A, Delamater PL, Gupta J, Kehn-Hall K, Narayanan A, Pierobon M, Rowan KE, Schwebach JR, Seshaiyer P, Sklarew DM, Stefanidis A, Agouris P. Lessons from the Ebola Outbreak: Action Items for Emerging Infectious Disease Preparedness and Response. *Ecohealth*. 2016 Mar;13(1):200-12. doi: 10.1007/s10393-016-1100-5. Epub 2016 Feb 25. PMID: 26915507; PMCID: PMC7087787.

John Selby, Data localization laws: trade barriers or legitimate responses to cybersecurity risks, or both?, *International Journal of Law and Information Technology*, Volume 25, Issue 3, Autumn 2017, Pages 213–232, <https://doi.org/10.1093/ijlit/eax010>

Khabbaz R, Bell BP, Schuchat A, Ostroff SM, Moseley R, Levitt A, Hughes JM(2015) Emerging and Reemerging Infectious Disease Threats. Mandell, Douglas, and Bennett's Principles and Practice of Infectious Diseases. 2015:158–177.e6. [10.1016/B978-1-4557-4801-3.00014-X](https://doi.org/10.1016/B978-1-4557-4801-3.00014-X) Epub 2014 Oct 31. PMCID: PMC7151803.

Khatri, R.B., Endalamaw, A., Erku, D. et al. Preparedness, impacts, and responses of public health emergencies towards health security: qualitative synthesis of evidence. *Arch Public Health* 81, 208 (2023). <https://doi.org/10.1186/s13690-023-01223-y>

Koua EL, Njingang JRN, Kimenyi JP, et al.(2023) Trends in public health emergencies in the WHO African Region: an analysis of the past two decades public health events from 2001 to 2022. *BMJ Glob Health* 2023;8:e012015. doi:10.1136/bmjgh-2023-012015

McNabb, S.J., Chungong, S., Ryan, M. et al(2002). Conceptual framework of public health surveillance and action and its application in health sector reform. *BMC Public Health* 2, 2 (2002). <https://doi.org/10.1186/1471-2458-2-2>

Medley AM, Gasanani J, Ceaser Adibaku Nyolimati CA, Elvira McIntyre E, Ward S, Okuyo B, Duncan Kabiito D, Cristel Bender C, Jafari Z, LaMorde M, Peter Babigumira PM, Nakiire, Agwang C, Merrill R, Ndumu D, Kiconco D (2020) Preventing the cross-border spread of zoonotic diseases: Multisectoral community engagement to characterize animal mobility—Uganda, 2020 <https://onlinelibrary.wiley.com/doi/pdf/10.1111/zph.12823>

Merrill, R. D., Rogers, K., Ward, S., Ojo, O., Kaka, C., Agbeko, T....Brown, C. (2017). Responding to Communicable Diseases in Internationally Mobile Populations at Points of Entry and along Porous Borders, Nigeria, Benin, and Togo. *Emerging Infectious Diseases*, 23(13). <https://doi.org/10.3201/eid2313.170520>.

Msellati L, Commault J, Dehove (2012) A. Good veterinary governance: definition, measurement and challenges. *Rev Sci Tech*. 2012 Aug;31(2):413-30. <https://doi.org/10.20506/rst.31.2.2130>. PMID: 23413724

Ndoungué, V. F., Ngapagna, A. N., Kouadio, S. A., Djinguebey, R., Gnigninanjouena, O., Eyangoh, S., Nguéack-Tsagué, G., Djeunga, H. C. N., & Njajou, O. T. (2022). Assessing core capacities for addressing public health emergencies of international concern at designated points of entry in Cameroon during the COVID-19 Pandemic. *BMC Public Health*, 22(1). <https://doi.org/10.1186/s12889-022-14614-7>

Nkengasong, J. N., & Kamwi, R. N. (2017). Infectious diseases threaten Africa's health security. *Southern African Journal of Infectious Diseases*, 32(4), 1. <https://doi.org/10.4102/sajid.v32i4.32>

Nkengasong, J. N., & Tessema, S. K. (2020). Africa needs a new public health order to tackle infectious disease threats. *Cell*, 183(2), 296–300. <https://doi.org/10.1016/j.cell.2020.09.041>

Núñez-Regueiro, M. (2010). Fusing visual and clinical information for lung tissue classification in HRCT data. HAL (Le Centre Pour La Communication Scientifique Directe). <https://doi.org/10.1016/j>

Nutley T, Reynolds HW(2013). Improving the use of health data for health system strengthening. *Glob Health*

Action. 2013 Feb 13;6:20001. doi: 10.3402/gha.v6i0.20001. PMID: 23406921; PMCID: PMC3573178.

Nwafor, C. D, Ilori, E., Olayinka, A., Ochu, C. L., Olorundare, R., Edeh, E., Okwor, T., Oyeibanji, O., Namukose, E. M., Ukponu, W., Olugbile, M., Adekanye, U., Chandra, N., Bolt, H., Namara, G., Ipadeola, O., Furuse, Y., Woldetsadik, S. F., Akano, A., . . . Ihekweazu, C. (2021). The One Health approach to incident management of the 2019 Lassa fever outbreak response in Nigeria. *One Health*, 13, 100346. <https://doi.org/10.1016/j.onehlt.2021.100346>

Oleribe O.O, Momoh J, Uzochukwu BS, Mbofana F, Adebiyi A, Barbera T, Williams R, Taylor-Robinson SD (2019). Identifying key challenges facing healthcare systems in Africa and potential solutions. *Int J Gen Med*. 2019 Nov 6;12:395-403. doi: 10.2147/IJGM.S223882. PMID: 31819592; PMCID: PMC6844097.

Onyekuru, N. A., Ihemezie, E. J., Ezea, C., Apeh, C. C., & Onyekuru, B. (2023). Impacts of Ebola disease outbreak in West Africa: Implications for government and public health preparedness and lessons from COVID-19. *Scientific African*, 19, e01513. <https://doi.org/10.1016/j.sciaf.2022.e01513>

Talisuna A, Yahaya AA, Rajatonirina SC, Stephen M, Oke A, Mpairwe A, Diallo AB, Musa EO, Yota D, Banza FM, Wango RK, Roberts NA, Sreedharan R, Kandel N, Rashford AM, Boulanger LL, Huda Q, Chungong S, Yoti Z, Fall IS (2019). Joint external evaluation of the International Health Regulation (2005) capacities: current status and lessons learnt in the WHO African region. *BMJ Glob Health*. 2019 Nov 1;4(6): e001312. doi:10.1136/bmjgh-2018-001312. PMID: 31798983; PMCID: PMC6861072.

Tilahun, B., Teklu, A., Mancuso, A. et al. (2021) Using health data for decision-making at each level of the health system to achieve universal health coverage in Ethiopia: the case of an immunization programme in a low-resource setting. *Health Res Policy Sys* 19 (Suppl 2), 48 (2021). <https://doi.org/10.1186/s12961-021-00694-1>

UN (2022) United Nations, World Population Prospects (2022); and Our World in Data. [file:///C:/Users/user/Downloads/undesa\\_pd\\_2022\\_WPP\\_summary\\_of\\_results.pdf](file:///C:/Users/user/Downloads/undesa_pd_2022_WPP_summary_of_results.pdf)

Urquia, M. L., & Gagnon, A. J. (2011). Glossary: migration and health. *Journal of Epidemiology and Community Health*, 65(5), 467–472. <https://doi.org/10.1136/jech.2010.109405>

USAID (2014): Regional Economic Communities, Results from a Landscape Analysis of Regional Health Sector Actors in Africa: Comparative Advantages, Challenges, and Opportunities. [http://www.africanstrategies4health.org/uploads/1/3/5/3/13538666/regional\\_economic\\_communities\\_full\\_length\\_report\\_final.pdf](http://www.africanstrategies4health.org/uploads/1/3/5/3/13538666/regional_economic_communities_full_length_report_final.pdf)

USAID (2019) The Cross-border Health Initiative for Polio Eradication : Operation Guide. Developed by CORE Group Polio Project. Horn of Africa Secretariat. <https://coregroup.org/wp-content/uploads/2019/06/CGPP-Cross-border-Health-Initiative-Guide-5-22-19-FINAL-1.docx>

Usman AB, Lokossou VK, Sawadogo K, et al (2023). Capacity building at points of entry during COVID-19 pandemic: harmonising training curriculum for Economic Community of West African States. *BMJ Global Health* 2023; 8:e010892. <https://gh.bmj.com/content/bmjgh/8/1/e010892.full.pdf>

WAHO (2023) ECOWAS Regional Center for Surveillance and Disease Control, West African Health Organization (WAHO). ECOWAS Cross-border Surveillance Strategic Plan 2025-2029. Abuja, Nigeria: RCSDC, WAHO 2025. 62p. [https://cdn.who.int/media/docs/default-source/documents/health-topics/refugee-and-migrant-health/ecowas.pdf?sfvrsn=7552417e\\_3](https://cdn.who.int/media/docs/default-source/documents/health-topics/refugee-and-migrant-health/ecowas.pdf?sfvrsn=7552417e_3)

West L (2019) Pollution in one country can have serious environmental consequences in others. <https://www.treehugger.com/cross-border-pollution-1204093>

WHO (2004) Cross-border Control of Priority Communicable Diseases Report of the Regional Consultation Bangkok, Thailand, 17-18 March 2004 WHO Project No.: ICP CPC 001. [https://books.google.co.ke/books/about/Cross\\_border\\_Control\\_of\\_Priority\\_Communi.html?i](https://books.google.co.ke/books/about/Cross_border_Control_of_Priority_Communi.html?i)

WHO (2005) International Health Regulations (IHR)-2005, 3<sup>rd</sup> Edition <https://iris.who.int/bitstream/handle/10665/246107/9789241580496-eng.pdf?sequence=1>

WHO (2014) Coordinated public health surveillance between points of entry and national health surveillance systems: Advising principles. WHO/HSE/GCR/LYO/2014.12. [https://iris.who.int/bitstream/handle/10665/144805/WHO\\_HSE\\_GCR\\_LYO\\_2014.12\\_eng.pdf?sequence=1&isAllowed=y](https://iris.who.int/bitstream/handle/10665/144805/WHO_HSE_GCR_LYO_2014.12_eng.pdf?sequence=1&isAllowed=y)

WHO (2014). Coordinated public health surveillance between points of entry and national health surveillance systems: advising principles. World Health Organization. <https://iris.who.int/handle/10665/144805>

WHO (2017). A Strategic Framework for Emergency Preparedness. [https://extranet.who.int/sph/sites/default/files/document library/document/Preparedness-9789241511827-eng.pdf](https://extranet.who.int/sph/sites/default/files/document%20library/document/Preparedness-9789241511827-eng.pdf) ISBN 978-92-4-151182-7

WHO (2019) A heavy burden: the productivity cost of illness in Africa. Brazzaville: WHO Regional Office for Africa; 2019. Licence: CC BY-NC-SA 3.0 IGO. <file:///C:/Users/user/Downloads/312173-eng.pdf>

WHO (2019) Integrated Disease Surveillance and Response Technical Guidelines, Booklet One: Introduction Section. Brazzaville: WHO Regional Office for Africa; 2019. Licence: CC BY-NC-SA 3.0 IGO. <https://www.afro.who.int/publications/technical-guidelines-integrated-disease-surveillance-and-response-african-region-third>

WHO (2019) Integrated Disease Surveillance and Response Technical Guidelines: Booklet Five: Section 10 WHO/AF/WHE/CPI/04, 2019 Some rights reserved. This work is available under the Creative Commons Attribution-Non-Commercial-Share Alike 3.0 IGO licence (CC BY-NC-SA 3.0 IGO; <https://creativecommons.org/licenses/by-ncsa/3.0/igo>)

WHO (2019) WHO's strategy for the Eastern Mediterranean Region, 2020–2023: Turning Vision 2023 into action / World Health Organization. Regional Office for the Eastern Mediterranean- <https://applications.emro.who.int/docs/EMRPUB-RDO-014-2019-EN.pdf>

WHO (2020) Handbook for public health capacity-building at ground crossings and cross-border collaboration ISBN 978-92-4-000029-2 (electronic version) ISBN 978-92-4-000200-5 (print version). <https://iris.who.int/bitstream/handle/10665/331534/9789240000292-eng.pdf?sequence=1>

WHO (2023) Ebola Virus diseases. [https://www.who.int/news-room/fact-sheets/detail/ebola-virus-disease?gclid=Cj0KCQiA67CrBhC1ARIsACKAa8SEtx6BVZJpz6\\_XoYisFsGL576nvskZZNZh7API2SoMXoCXu7qTSg0aAgvnEALw\\_wcB](https://www.who.int/news-room/fact-sheets/detail/ebola-virus-disease?gclid=Cj0KCQiA67CrBhC1ARIsACKAa8SEtx6BVZJpz6_XoYisFsGL576nvskZZNZh7API2SoMXoCXu7qTSg0aAgvnEALw_wcB)

WHO (2027) A strategic framework for emergency preparedness ISBN 978-92-4-151182-Some rights reserved. This work is available under the Creative Commons Attribution-Non-Commercial-Share Alike 3.0 IGO licence (CC BY-NC-SA 3.0 IGO; <https://creativecommons.org/licenses/by-nc-sa/3.0/igo>).

WHO EURO(2021) IHR: Points of Entry. 2021 <https://www.euro.who.int/en/health-topics/health-emergencies/international-health-regulations/points-of-entry>

WHO(2003) Practical Guidelines for Infection Control in Health Care Facilities. <https://iris.who.int/bitstream/handle/10665/205652/B0057.pdf?sequence=1>

WHO(2020) Global spending on health 2020: weathering the storm. Geneva: World Health Organization;2020. Licence: CC BY-NC-SA 3.0 IGO. [https://hlh.who.int/docs/librariesprovider4/data-monitoring/global-spending-on-health---weathering-the-storm.pdf?Status=Master&sfvrsn=7bed245e\\_5](https://hlh.who.int/docs/librariesprovider4/data-monitoring/global-spending-on-health---weathering-the-storm.pdf?Status=Master&sfvrsn=7bed245e_5)

WHO, FAO and WOA (2019) Taking a Multisectoral, One Health Approach: A Tripartite Guide to Addressing Zoonotic Diseases in Countries. ISBN: 978-92-4-151493-4 (WHO) ISBN: 978-92-5-131236-0 (FAO) ISBN: 978-92-9-511504-0 (OIE). <https://iris.who.int/bitstream/handle/10665/325620/9789241514934-eng.pdf?sequence=1>

WHO, FAO, UNEP and WAOH (2023) A guide to implementing the One Health Joint Plan of Action at national level ISBN (WHO) 978-92-4-008206-9 (electronic version) ISBN (WHO) 978-92-4-008207-6 (print version) ISBN (FAO) 978-92-5-138195-3 ISBN (UNEP) 978-92-807-4097-4 ISBN (WAOH) 978-92-95121-88-1 [https://wedocs.unep.org/bitstream/handle/20.500.11822/44353/one\\_health\\_joint\\_plan.pdf?sequence=1&isAllowed=y](https://wedocs.unep.org/bitstream/handle/20.500.11822/44353/one_health_joint_plan.pdf?sequence=1&isAllowed=y)

WHO(2022) Early Warning Alert and Response in Emergencies: an operational guide. ISBN 978-92-4-006358-7 (electronic version), ISBN 978-92-4-006359-4 (print version). <https://iris.who.int/bitstream/handle/10665/365730/9789240063587-eng.pdf?sequence=1>

WAOH & FAO( 2004) The Global Framework for the Progressive Control of Transboundary Animal Diseases ( GF-TADs ). Food and Agriculture Organization of the United Nations Viale delle Terme di Caracalla - 00100 Rome - Italy - tel: 39 06 57051 - fax: 39 06 570 53152 - [www.fao.org](http://www.fao.org). World Organisation for Animal Health (OIE) 12, rue de Prony - 75017 PARIS - France - tel: 33 (0)1 44 15 18 88 - fax: 33 (0)1 42 67 09 87 - [www.oie.int](http://www.oie.int)



# Annexes

## Annex I: Monitoring and Evaluation Matrix for the Cross Border Strategic Framework

Strategic Pillar 1: Improve coordination, collaboration, governance, and financing for cross-border surveillance				
Strategic intervention	Level of Implementation (international, regional, national sub-national)	Indicator	Responsible (who)	Time Frame <ul style="list-style-type: none"> <li>• Short (1 year)</li> <li>• Medium (2-3 years)</li> <li>• long-term (5 years)</li> </ul>
1.1 Establish/strengthen multisectoral and multi-disciplinary coordination mechanisms, including cross-border health committees for improved collaboration, surveillance, and information sharing, leveraging on RISLNET and other relevant networks.	All Levels	<ul style="list-style-type: none"> <li>• Number of countries with cross border committees in place by 6 months</li> <li>• Number of cross-border committees in force in 6 months</li> <li>• Number of coordination meetings at continental/ regional and national levels held in each calendar year</li> <li>• No of activities carried out by the cross-border committee by year 1</li> </ul>	AfCDC HQ, RECs, RCC and MOH	6 months  1 year
1.2 Promote cross-border collaborative response mechanisms within the EOC/ crisis management structure of Member States.	National level, AU	<ul style="list-style-type: none"> <li>• Joint all-hazard emergency preparedness and response plan with cross border component developed (revised every 3 years and when outbreaks occur)</li> <li>• Number of MS with developed joint all-hazard emergency preparedness and response plan with cross border component (revised every 3 years and when outbreaks occur)</li> </ul>	MoH and other relevant ministries	6 months
1.3 Support the Development of Regional/national strategies, guidelines, action plans and SOPs for cross-border health surveillance to enhance emergency preparedness, readiness and response to public health events and threats.	Regional and national	<ul style="list-style-type: none"> <li>• Number of MS with harmonized guidelines, action plans and procedures developed for cross border public health threat detection</li> </ul>	MoH and key relevant sectors Africa CDC	1 year
1.4 Support the development / strengthening of cross border risk profiling and IHR core capacity assessment	National	<ul style="list-style-type: none"> <li>• Number of reports on cross border risk profile and IHR core capacity assessment available</li> </ul>	MoH IHR focal point with support from relevant partners	1 year



1.5 Support border health service integration into Joint Border Posts (JBP)/One-Stop Border Posts (OSBP)	National	<ul style="list-style-type: none"> <li>Number of policy documents devised that instructs the integration of border health services into JBPs/OSBP</li> <li>percentage of JBP/OSBP with functional border health service provision</li> </ul>	MoH POE/ Port health services	1 year  Baseline and annually
1.6 Ensure integration of cross-border surveillance into the national surveillance systems.	National	<ul style="list-style-type: none"> <li>Number of POE with established immediate reporting mechanism (within 24 hours) of public health events at PoEs from all formal, and informal sources (e.g. event-based surveillance (EBS) and community-based surveillance (CBS) into the national surveillance system. Proportions of PoE that report public health events immediately</li> </ul>	MoH and Port health services	1 year  Baseline and annually
1.7 Engage in advocacy with policymakers and other key stakeholders to promote coordinated cross border health services.	National and sub-national	<ul style="list-style-type: none"> <li>Quarterly advocacy meetings held with policy makers and port health stakeholders within the cross-border space</li> </ul>	MoH and port health services	Annually
1.8 Support joint resource mobilization efforts and equitable allocation of available resources for the implementation of the cross-border surveillance framework.	All levels	<ul style="list-style-type: none"> <li>Availability of Joint resource mobilization plan</li> <li>Budgets allocated annually for the equitable implementation of the cross-border surveillance framework</li> <li>Funding obtained implementation of cross-border surveillance framework and information sharing</li> </ul>	MoH and Partners	1 year

### Strategic Pillar 2: Enhance capacities at PoEs (including Infrastructure, logistical, and technical capacities) for early detection and response to public health threats

Strategic intervention	Level of Implementation (International, National, Regional, sub-national)	Indicator	Responsible (who)	Time Frame <ul style="list-style-type: none"> <li>Short 1 year,</li> <li>Medium 2-3 years, and</li> <li>long-term 5 years</li> </ul>
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1.1 Support development and implementation of relevant documents (SOPs, operational plans, guidelines, tools, etc.) to facilitate gazetted/designated PoE operations and cross-border surveillance.	1. International, 2. Regional 3. National, 4. sub-national	<ul style="list-style-type: none"> <li>Number of SOPs and guidance documents for each of gazetted/designated PoE operational area in line with IHR requirements</li> <li>Number of POE that report using relevant documents</li> <li>Number of gazette/designated POE with multi- sectoral all-hazard emergency preparedness and response plan (revised periodically and when outbreaks occur)</li> <li>Number of MS with developed multi- sectoral all -hazard emergency preparedness and response plan</li> </ul>	1. MOH, 2. POE	Medium
1.2 Support capacity building of Border Health and other relevant agencies/ stakeholders through learning, re-tooling, knowledge exchange, communities of practice training and establishment/ strengthening of professional networks	1. National, 2. sub-national	<ul style="list-style-type: none"> <li>Number of Border Health staff trained on POE operations and cross border surveillance</li> <li>Number of Community of practice sessions held</li> <li>Number of stakeholders trained</li> </ul>	National Subnational	long term
1.3 Support the conducting of simulation exercises to test plans and improve capacity for prevention, preparedness, early detection, readiness, and response to public health threats.	1. Regional 2. National; and 3. sub-national	<ul style="list-style-type: none"> <li>Number of SimExs/trainings per year</li> <li>Number of SimExs conducted</li> <li>Number of staff trained in conducting SimExs</li> <li>Number of training record portfolio</li> <li>Number of SimExs reports and recommendations</li> </ul>	1. MOH and relevant sectors 2. Port health 3. Technical partners	<ul style="list-style-type: none"> <li>Medium and</li> <li>long term</li> </ul>
1.4 Provision of infrastructure, equipment, and essential mechanisms for implementing border health activities.	1. international 2. National, 3. Sub national	<ul style="list-style-type: none"> <li>Number of MS with available policy frameworks and action plans to support the provision of infrastructure, equipment and essential mechanisms for implementing border health activities</li> <li>Number of MS with PoEs have resources with (infrastructure, Human Resource, and equipment) to detect public health threats</li> </ul>	1. MOH, 2. Relevant sectors and technical partners	<ul style="list-style-type: none"> <li>Medium term</li> </ul>
1.5 Develop standardized guidelines for the establishment / improvement of infrastructure, equipment and logistics for improved service	1. National, 2. Sub national	<ul style="list-style-type: none"> <li>Availability of guidelines for Infrastructure, equipment and logistics requirements at the POEs</li> </ul>	<ul style="list-style-type: none"> <li>MoH</li> <li>Relevant sectors and technical partners</li> </ul>	<ul style="list-style-type: none"> <li>Medium term</li> </ul>

1.6 Support strengthening of infection, prevention, and control (IPC) at PoEs	1. National 2. Sub national	<ul style="list-style-type: none"> <li>Availability of recommended IPC practice at PoEs integrated into the local/sub-national/national IPC strategies and plans</li> <li>Number of POEs with standards waste management systems</li> </ul>	<ul style="list-style-type: none"> <li>MOH,</li> <li>Relevant sectors and technical partners,</li> </ul>	<ul style="list-style-type: none"> <li>Medium term</li> </ul>
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### Strategic Pillar 3: Strengthen mechanisms for cross – border public health data and information sharing and operational research

Strategic intervention	Level of Implementation (International, National, Regional, sub-national)	Indicator	Responsible (who)	Time Frame <ul style="list-style-type: none"> <li>(Short 1year),</li> <li>Medium (2-3 years), and</li> <li>long-term (5 years)</li> </ul>
1.1 Support harmonization and interoperability of standardized reporting protocols and tools for data collection, including case definitions, reporting formats, and surveillance systems using common variables.	National and regional	<ul style="list-style-type: none"> <li>Number of MS with reporting protocols</li> <li>Availability of harmonized, digitized and standardized data collection tools, including case definitions</li> </ul>	RCC / RECs	3 years
1.2 Support the development and utilization of digital technologies, standardized data collection, sharing platforms, and tools for real-time data transmission and analysis across borders.	Regional and international	<ul style="list-style-type: none"> <li>Number of MS with availability of a secured and an interoperability platform for surveillance systems</li> <li>Number of MS utilizing the secured and interoperability surveillance platform</li> </ul>	RCC/ RECs	3 years
1.3 Support the development and implementation of data sharing and security guidelines which also includes data on mobile population.	Continental and Regional	<ul style="list-style-type: none"> <li>Availability of regional and multilateral data sharing and security guidelines, agreements and SOPs which includes data on mobile population</li> </ul>	Africa CDC, RCCs/ RECs	3 - 5 years
1.4 Integrate operational research into surveillance, preparedness and response activities to inform policy decisions on border health.	Continental and Regional National	<ul style="list-style-type: none"> <li>Number of regions and MS that have protocols for operational research on surveillance, preparedness and response activities.</li> </ul>	Africa CDC, RCCs/ RECs	2 years

### Strategic Pillar 4: Improve border health surveillance and laboratory systems at PoEs

Strategic intervention	Level of Implementation (International, National, Regional, sub-national)	Indicator	Responsible (who)	Time Frame <ul style="list-style-type: none"> <li>Short (1 year)</li> <li>Medium (2-3 years);</li> <li>long-term (5 years)</li> </ul>
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1.1 Develop /strengthen surveillance and early warning systems (including cross-border community-based surveillance) to detect signals and indicators of potential public health events.	MS	<ul style="list-style-type: none"> <li>• Availability of digitalized / electronic early warning systems (including cross-border community-based surveillance) to detect signals and indicators of potential public health events.</li> <li>• Number of MS with available digitized early warning systems (including cross-border community-based surveillance) to detect signals and indicators of potential public health events.</li> </ul>	MS	1 year
1.2 Establish/ strengthen diagnostic capacities at PoEs and linkages with referral facilities.	National	<ul style="list-style-type: none"> <li>• Number of PoEs with access to diagnostic platforms</li> <li>• Number of POE with contingency plans/ Emergency preparedness plans</li> <li>• Number of POE with of SOPs for screening and referrals to reference laboratories</li> <li>• Proportion of PoE staff trained on screening</li> </ul>	MS	1 year
1.3 Support the conducting of risk assessment at PoEs and surrounding communities.	Regional/ National	<ul style="list-style-type: none"> <li>• Number of PoEs that have conducted risk assessment</li> <li>• Number of risk profile report available</li> <li>• Availability of risk lists</li> </ul>	MS and RCC	1-5 years
1.4 Strengthen and promote multi sectoral information sharing and knowledge management	Continental Regional/ National/	<ul style="list-style-type: none"> <li>• Number of with existing integrated community of practice</li> <li>• Availability of online multi sectoral information sharing and knowledge management platforms</li> </ul>	Africa CDC, RCC and MS	1-5 years

#### Strategic Pillar 5: Improve cross-border risk communication, community engagement and social mobilization among border communities

Strategic intervention	Level of Implementation (International, National, Regional, sub-national)	Indicator	Responsible (who)	Time Frame • (Short, Medium, and long-term)
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1.1 Develop/ strengthen mechanisms for risk communication and community engagement (RCCE) that includes working through community informants, RCCE champions, etc. and establish rumour tracking systems/ mechanisms for border health	National	<ul style="list-style-type: none"> <li>Availability of Communication strategy</li> <li>Availability of an established and functional national-level RCCE working group</li> </ul>	National RCCE focal point	Medium term Short-Term
	Sub-National	<ul style="list-style-type: none"> <li>Proportion of border districts/ sites with established and functioning committees that implement cross-border RCCE activities</li> </ul>	Sub-National RCCE focal point	Short-Term
1.2 Support the development of RCCE plans for border health, including for mobile populations.	National	<ul style="list-style-type: none"> <li>Availability of a national-level, multi-hazard RCCE plan which incorporates cross-border activities</li> </ul>	National RCCE Working Group	Short-Term
	Sub-National	<ul style="list-style-type: none"> <li>Availability of a sub-national, multi-hazard RCCE plan which incorporates cross-border activities</li> </ul>	Sub-national RCCE Working Group	Short-Term
1.3 Support the development and provision of Information Education and Communication (IEC) materials for public health events.	National	<ul style="list-style-type: none"> <li>Number of public health events with IEC materials developed and disseminated</li> </ul>	National RCCE Working Group	Continuous
	Sub-National	<ul style="list-style-type: none"> <li>Proportion of IEC materials adapted, translated and disseminated to border communities</li> </ul>	Sub-national RCCE Working Group	Continuous

#### Strategic Pillar 6: Strengthen monitoring and mapping of population mobility patterns and dynamics for public health emergency preparedness and response

1.1 Support mapping of migration/population mobility trends to guide surveillance and other public health actions.	Regional	<ul style="list-style-type: none"> <li>Proportion of multi-country public health risks/events for which joint population mobility monitoring and mapping is conducted</li> </ul>	WHO/IOM/US-CDC/Africa CDC/RECs	Mid-Term
	National	<ul style="list-style-type: none"> <li>Availability of an established multi-sectoral team with capacity for cross-border risk assessment and mobility monitoring and mapping</li> </ul>	MoH, other relevant line ministries and partners (WHO/IOM/US-CDC)	Mid-Term
	Sub-National	<ul style="list-style-type: none"> <li>Proportion of risks prioritized from mobility mapping</li> </ul>	Sub-national MoH, other relevant line ministries and partners	Mid-Term
1.2 Support integration of population mobility data in the national surveillance dashboard/ surveillance systems for public health information	National	<ul style="list-style-type: none"> <li>Availability of Population mobility data integrated into the national surveillance system information products and dashboard</li> </ul>	National MoH	Mid-Long Term

1.3	Support the utilization of information generated through human and animal population mobility mapping for prevention, preparedness and response activities	National	<ul style="list-style-type: none"> <li>Proportion of public health events in which population mobility data was utilized in response interventions</li> </ul>	MoH, other line ministries and partners	Mid-Long Term
1.4	Support assessment of National and local capacities for population mobility and diseases transmission data collection	National Sub national	<ul style="list-style-type: none"> <li>Availability of Staff Training report(s) on assessment of population mobility and diseases transmission data collection</li> <li>Availability of guidelines on assessment of population mobility and diseases transmission data collection</li> <li>Availability of Reports on population mobility and diseases transmission</li> </ul>	National MOH, MOALD, WHO/ IOM/ Africa CDC/RECs	Short term







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