



**Africa Centres for Disease Control and Prevention** 

## Framework for Supply Chain Management for Public Health Emergency Preparedness and Response

		~@
ŝ		
	Ē	

\*2A5\*

## Contents

Introduction1
Objective of the Framework3
Legal and Institutional Basis4
1. Supply Chain Management for Emergency Preparedness
and Response7
1.1 Emergency Preparedness7
a. Supplies Forecasting7
b. Procurement and Framework Agreements/Call off Contracts 7
c. Logistics and Stockpiling9
d. Periodic Simulation Exercise11
1.2. Emergency Response12
a. Emergency Assessment12
b. Activation of Advisory and Technical Working Groups13
c. Activating Emergency Procurement and Framework
Agreements13
d. Acquisition of Supplies During Response14
e. Emergency Logistics for Delivery15
2. Waste Management16
3. Financing16
4. Partnership Engagement and Coordination
5. Performance Management Systems21

### Introduction

Emerging and re-emerging pathogens over the last 40 years have highlighted the need for a balanced and well-managed input of resources, like fixed medical equipment and consumable-like medical supplies and medicines to effectively mitigate the effects of these pathogens. Between 2001 and 2016, out of the 5,462 public health events recorded by WHO, 1,508 (28%) occurred in the WHO Africa region, out of which 81% were authenticated.<sup>1</sup> In 2018 alone, a total of 96 new infectious disease outbreaks were reported across 36 African countries.<sup>2</sup> This suggests a high burden of recurring and multiple disease outbreaks will continue to strain the limited health infrastructure and systems within the African continent. Moreover, these public health hazards which primarily lead to high morbidity and mortality also have social and economic impact resulting in poorer quality of life and lower productivity constraining economic growth across the continent.

These health emergencies and vulnerabilities must be addressed more systematically. Proactive and robust measures are required to plan, prepare, prevent, and respond to public health outbreaks and ensure Africans live a healthy and prosperous life. The Africa Centres for Disease Control and Prevention (Africa CDC) is mandated to support African Union Member States in the preparation and response to disease outbreaks and other public health emergencies.

The Africa CDC has instituted five divisions which aim to mitigate the adverse effects of public health emergencies: Surveillance and Disease Intelligence, Laboratory Systems and Networks, Public Health Information Systems, National Public Health Institutes and Research, and Emergency Preparedness and Response. This document is intended to enhance the Emergency Preparedness and Response Division,

<sup>&</sup>lt;sup>1</sup>2016 Report on acute public health events assessed by WHO Regional Offices for Africa, the Americas, and Europe under the IHR, November. 2017.

<sup>&</sup>lt;sup>2</sup>Mboussou F, et al. Infectious disease outbreaks in the African region: Overview of events reported to the World Health Organization in 2018. Epidemiology and Infection 147:e299, 1–8. 2019. Available from: https://doi.org/10.1017/S0950268819001912.

focusing on its internal capacities specific to supply chain management. This framework document intends to lay down the required systems and governance, and structures and skills to build effective national, regional, and continental preparedness and response activities.



*Three areas required to enhance Emergency Preparedness and Response Supply Chain Management* 

The current capacity to acquire medical supplies and deploy them on the continent through proper logistical infrastructure is not adequate to effectively respond to public health emergencies. One of the main challenges realized in the process of responding to the most recent health outbreaks is the long lead times required to secure urgent supplies at emergency sites.<sup>3</sup> This framework document is prepared to mitigate some of these challenges and enhance the Africa CDC's supply chain management mechanisms for enhanced emergency preparedness and response. Previous learnings have been captured to lay out the key consideration that lead to timely and effective response.

This framework is intended to be used by the supply chain management team at Africa CDC for internal guidance. The supply chain preparedness and response manual has also been developed to supplement this

<sup>&</sup>lt;sup>3</sup>Africa is highly dependent on the importation of critical medical supplies and health technologies which results in a higher lead time for transportation.

framework. Furthermore, it should be used in the spirit of achieving greater coordination and alignment with various global, regional, and national preparedness and response actions and initiatives.



Responding to an emergency requires a holistic and proactive preparedness and response plan that addresses capacity building, deployment of health workers, delivering essential supplies, and other essential services to adequately reduce the spread and impact of the declared emergency. This framework seeks to provide high-level strategic directions to meaningfully impact how supplies and services are delivered to emergency frontlines.

Specifically, this framework will:

- 1. Establish a high-level **strategic guidance** for the timely procurement and delivery of essential emergency response supplies drawing from international best practices.
- 2. Ensure appropriate stewardship of in-kind or financial assets acquired by the Africa CDC are used in line with the principles, processes, and mechanisms indicated in the African Union financial rules and regulations.
- 3. Encourage effective **coordination and collaboration** with major stakeholders and partners engaged in public health emergency preparedness and response with the aim of creating productive synergies and enhancing the overall effectiveness of the response.
- 4. Propose a set of improved performance management systems for the supply chain management process as it relates to the emergency preparedness and response effort.



The Africa CDC established as a specialized institution of the African Union by the African Union Assembly (African Union/Dec.554 [XXIV] adopted at its 24<sup>th</sup> Ordinary Session in January 2015) was mandated to promote prevention and control of diseases in Africa. It also draws its mandate to act during health emergencies from the African Union Constitutive Act Articles 4(h) and (j) which gives African Union the mandate to intervene when there is a crisis or emergency within Member States to support peace building and for humanitarian assistance.

The Africa Health Strategy (AHS 2016–2030), an overarching document, provides strategic guidance for Member States in the implementation of health policies. This document stipulates the role that Africa CDC will undertake in disease prevention, surveillance, and emergency preparedness and response.

These aforementioned, institutional, and legal documents are expected to drive and guide the implementation of this framework in the preparedness and response activities to be carried out by the Member States.

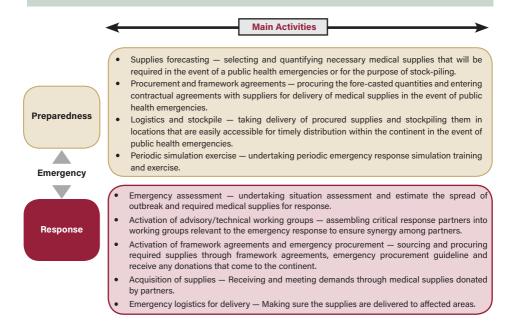
# 1. Supply Chain Management for Emergency Preparedness and Response

This section will consider the supply chain management of medical supplies and services<sup>4</sup> in the emergency preparedness and emergency response phases which fits into the broader emergency planning process that considers the entire activity of Africa CDC during emergencies; it should be noted that this document is specific to the former and not the latter.

<sup>&</sup>lt;sup>4</sup>Medical supplies include testing materials, laboratory and intravenous kits, pharmaceuticals, personal protective equipment (PPEs), and medical devices. For services, it will include third party logistics providers, storage providers, consultants, or community health workers to be deployed.

The initial days after the onset of a public health emergency are crucial in dictating the trajectory of the spread/impact of the emergency. The swift and timely delivery of supplies necessary for the response effort during this period can make significant differences in the rate of morbidity/ mortality of the affected population significantly. Therefore, activities within the Africa CDC supply chain management must be flexible and agile enough to respond to emergencies quickly to have the desired outcome. Accordingly, this involves two phases of the emergency and disaster management process:

- Emergency Preparedness includes setting policy and procedures, agreements and hazard and risk analysis, acquiring and stockpiling of necessary medical and non-medical supplies, training of emergency work force, conducting public health simulation exercise, and resource mapping etc.
- **Emergency Response** is the phase emergency policies and procedures will be activated to timely and efficiently mobilize the relevant supplies and resources necessary for the response.



Major activities in the preparedness and response phases

#### **1.1. Emergency Preparedness**

After thorough hazard and risk analysis of potential public health emergencies, stockpiling, updating and pre-positioning of necessary supplies, and regularly manging inventory are critical activities in the preparedness phase. These can be achieved through the continuous flow of four major processes: such as, supplies forecasting, procurement and framework agreements, logistics and stockpiling and, simulation exercises.







## Supply Chain for Emergency Preparedness and Response

The **trigger** that will initiate the preparedness process mainly involves the identification and selection of public health threats that may pose significant danger to the health of a large portion of the population. Although a key stakeholder, identification of the disease that pose the highest threat and initiating the trigger for preparedness are not tasks of the supply chain management team. However, having clarity of the trigger will still help kick-off the supplies forecasting process and initiate series of internal and external stakeholder consultations and decisions.

#### a. Supplies Forecasting

Supplies forecasting involves identifying the necessary products and volumes that must be procured and stockpiled. This step is crucial to fast track the required activities to initiate procurements<sup>5</sup>,

- Receive the list of identified priority threats and hazards (both natural and human-made) with their risk matrices (likelihood of occurrence vs severity)
  - Assess and revise forecast data related to the spread, scope, and impact of prioritised hazardous disease outbreaks or other emergencies;
- Define essential supplies required for the response to each threat (i.e. identify specifications and standards<sup>6</sup> for each supply item, analyse relevant information and confirm with experts shelf life, efficacy, etc.);
- Set the quantities for each defined supply, where it is located and when; and

<sup>&</sup>lt;sup>5</sup>Article 4.1 of The 2016 African Union Procurement Manual.

<sup>&</sup>lt;sup>6</sup>Benchmarking set of defined standards and specification from partners like WHO and UNICEF can be a starting point to define the medical supplies or services. Must be in line with the required information on Article 4.2 of The 2016 African Union Procurement Manual

• Although this step mostly involves the forecasting for tangible supplies, securing the provision of services in terms hiring logistics provides and storage capacities might be required where they are unavailable.

#### b. Procurement and Framework Agreements/Call off Contracts

This process will involve three phases:

- i. Identification of suppliers<sup>7</sup>— this step includes the determination of whether the medical suppliers, manufacturers, or service providers have the capacity to meet the required quantity and quality of standards drawn from the previous step of forecasting.
- **ii.** Entering procurement/framework agreements<sup>8</sup>—procurement agreements involve the negotiation of essential terms and conditions to acquire medical supplies or services (for immediate use), stockpiling, or long- term performance in certain call offs or situations (like public health emergencies). In all three scenarios, the terms and conditions will dictate what supplies are required, how suppliers will deliver the required medical supplies, and the payment structure (to be considered when the financial budget/ fund will be released).

Entering into framework agreements would lead to lower lead time to secure these supplies, avoid price inflation, and ensure availability of the supplies. These agreements must be renewed and update periodically as the priority of public health outbreaks and/or supply forecasts might change.

iii. Procurement—this step is the initiation of the standby/ procurement agreements in line with African Union procurement modality with the end goal of stockpiling and storing. Before taking a delivery of supplies, the team must make proper inspections of

<sup>8</sup>Article 4.5.8 of the 2016 African Union Procurement manual.

<sup>&</sup>lt;sup>7</sup>Suppliers are not always manufacturers in medical supplies market, GPO-group purchasing suppliers, agents, wholesalers, or exclusive distributors of medical supplies and equipment are viable options as well, See Article 4.5.5 of the 2016 African Union Procurement manual. Furthermore, Article 4.3.1 of the 2016 African Union Procurement manual requires market research for selection and evaluation of suppliers.

<sup>8</sup> Framework for Supply Chain Management for Public Health Emergency Preparedness and Response

the supplies before taking delivery and affecting payments.9

The procurement process involves following the procedures in the African Union Procurement Manual to secure the best combination of technical specification, quality and price. The African Union Financial Rules and Regulations require that the following general principles be given due consideration when exercising the procurement functions of the Union:

- i. Value for money
- ii. Fairness, integrity, and transparency
- iii. Effective competition
- iv. Efficiency and economy
- v. The interest of the African Union

#### In-kind Donation of supplies during preparedness

Although it's not a strategy of the Emergency Preparedness and Response Division to fill demand gaps of medical supplies by depending on donations, various public or private initiatives can provide in-kind support in the form of donations in the preparedness phase that can be used for the purpose of stockpiling. In this case, it is critical to look at the major principles for donation of supplies section in the response phase of this document.

In the event that there are no sufficient storage spaces or demands for the medical supplies are sufficiently stockpiled, the supply team can look at channelling these supplies towards Member States national preparedness stockpile with the intention of filling supply gaps at the national level.

#### c. Logistics and Stockpiling

Most critical in this process of transporting and stockpiling medical supplies is the presence of *cold chain infrastructure* for both inbound

<sup>&</sup>lt;sup>9</sup>Article 7.5.2 of the 2016 African Union Procurement manual.

and outbound medical supplies for pharmaceutical and diagnostics supplies that must be transported with caution. Ensuring the safe and timely delivery of products to desired destination is a key step in the logistics process. There is a need to lay out a clear plan involving key stakeholders that must be engaged, such as customs authorities, logistics providers, and relevant processes such as preparing transport protocols, mapping transport routes, and tracking the movement and deliveries of supplies.

Effective logistics plans enable the delivery of vital emergency goods in a time-efficient manner, across or within borders with minimal damage, and wastage through improper handling. Early mapping and identification of transport mechanisms and routes can save valuable time and resources.

Hence, Africa CDC will include in its manual the following areas of activities:

- Development of a detailed logistics plan for strategic movement of commodities,
- Development of specific supply handling and storage protocols, and
- Development of standard operating procedures and documentation for timely custom clearance and release to point of use and or the designated storage facility.

The African Union established a Continental Logistic Base (CLB) which will serve as storage for supplies related to both public health emergencies, and humanitarian and peace support missions. The CLB is based in Duala, Cameroon and has multiple regional depos. As a result of this, Africa CDC plans to use this existing facility to stockpile medical commodities after conducting the appropriate renovations and building improved systems.

#### Stockpiling/inventory management of supplies

Stockpiling is the main mechanisms to ensure Member States have access to critical medical supplies for the initial period of the public health emergency enabling effective response before regular resupply can be established. The African CDC will stockpile supplies<sup>10</sup> at selected regional sites with the aim of supporting any Member State that declares a public health emergency, as such, it is essential to have these stockpiles at sites where they are easily accessible and timely deployed (re-exported) to affected areas.

Accordingly, when stockpiling, the following principles of inventory managements must be compiled in line with the African Union **policy**, **rules**, **and procedures**.

- Mapping of existing storage facilities and creating partnerships/ Memorandum of Understanding (MOU) for the utilization of such facilities.
- Understand and catalogue the storage and warehousing specifications for medical supplies that must be stockpiled. Most notable are supplies that have a short shelf life and/or require cold chain storage.
- Codifying and keeping medical supplies separate from other supplies.
- Ensuring medical supplies under the stewardship of Africa CDC *are insured* for possible accidents, man-made or natural.<sup>11</sup>

#### d. Periodic Simulation Exercise

Simulation exercises need to be conducted regularly to assess and evaluate the robustness of the existing plans, procedures, and resources for supply chain management. Based on the availability of resources, time, and staff, the exercise can be discussion-based (such as, tabletop exercises) or operations-based (such as, drills or full-scale exercises); and should assess, revise, and update key components and work streams along the supply chain management process.

<sup>&</sup>lt;sup>10</sup>The selection of supplies that can be used for multiple public health response are recommended to be stored in higher numbers (i.e., personal protective equipment). 11Article 15 of Property, Plant, and Equipment Policy.

#### 1.2. Emergency Response

During an emergency, to ensure availability of the necessary response supplies, a need assessment and analysis should be conducted based on the current situation on the ground, including the scale of the outbreak and projections of how it will evolve. Emergency response does not usually follow the regular supply chain process but would, instead, require flexibility and agility in the regular processes to ensure the timely delivery of supplies to the frontline of the outbreak.

An Emergency Supply Chain Management Guideline should have five processes: emergency assessment, activation of advisory/working groups, activation of emergency procurement, acquisition of supplies, and emergency logistics for delivery.



Supply Chain for Emergency Response

#### a. Emergency Assessment

During active emergency response, the Africa CDC Emergency Preparedness and Response Division will conduct an initial rapid needs assessment followed by an overall assessment of the required products. The required volume will be forecasted for the anticipated duration of the outbreak. This projection should also be in alignment with Member States projections. In parallel, the division will carry out additional assessment of current inventory levels in existing stockpiles, to determine the gap in order to meet the demand for each supply. This quantification of the required supplies will serve as an input for budgeting and planning of the initial Emergency Procurement.

#### b. Activation of Advisory and Technical Working Groups

The first step in responding to an emergency is setting up a tactical working team inclusive of personnel from organizations which have a role within the emergency response such as WHO AFRO, WFP, UNICEF, and other global, continental, regional, and national level organizations. Based on the nature of the public health emergency, the Africa CDC will invite organizations to sit in the critical working groups at the continental and regional levels, if they meet the following criteria:

- Do they work in relevant areas, e.g., public health response, supply chain management, or on emergency-at-hand at the continental and regional levels?
- Do they have relevant experience in addressing emergencies?
- Do they have extensive coverage and the potential for impact across the continent?

#### c. Activating Emergency Procurement and Framework Agreements

Cognizant of the increased time pressure during emergencies, and potential difficulties in following the regular African Union procurement processes, the African Union has set an emergency procurement mechanism.<sup>12</sup> Hence, the African Union Emergency Procurement Guidelines derived from the African Union protocol and procedures will be activated when emergency has been declared by the Africa CDC or African Union Commission. The Emergency Procurement Guidelines will provide the privilege for:

<sup>&</sup>lt;sup>12</sup>Article 4.7 of the 2016 African Union Procurement Manual establishes procurement under emergency and disaster situations.

- Increased thresholds for use of accelerated formal tendering methods (direct contracting and limited competition), and
- Increased thresholds for accessing delegated approval authorities to accelerate procurement decisions.

However, as a principle, the following areas need to be observed:

- Procurements of supplies need to be planned and conducted way ahead before emergencies.
- Long-standing agreements need to be in place with potential suppliers, manufacturers, and logistics service providers.
- In stewardship to the public fund administration, only a limited number of critical supplies must be targeted for emergency procurement.

#### d. Acquisition of Supplies During Response

At times of emergencies, in addition to procurement, donations of critical supplies are made by different interested groups to support Member States. As the Africa CDC is working on a continental level, donations need to be coordinated and made through discussions to make sure they are in alignment with the critical need of the continent but also to acquire supplies that are of standard. As such, the following basic principles must be followed in order to maximize the benefit of medical supplies donations:

- Information sharing—as possible donations should be based on an expressed need; this will help in ensuring that there is no overflow of specific supplies.
- Conformity of standards and law—donations should be provided according to the recipient Member States or Africa CDCs policies, and administrative and legal requirements (presentation, labelling, and packing requirements).
- Double standards should be prevented—medicines of unacceptable quality in the donor country should not be donated to Member States

or Africa CDC. Donated medicines should be authorized for sale in the country of origin and should be manufactured in accordance with international standards of good manufacturing practices.

 Assignment of costs—costs of international and local transport, warehousing, port clearance and (customs) storage, handling and disposal or reverse logistics of expired donated products should be agreed on between donor and recipient before the dispatch of donations.

#### e. Emergency Logistics for Delivery

During emergencies, logistics and movement of supplies and personnel are usually challenging and costly for different reasons including limited access to transport infrastructure (for extreme events), lockdowns and movement restrictions that are commonly associated with outbreaks. However, Member States with UN agencies usually set humanitarian corridors and air-bridging that will be used to transport necessary emergency supplies and response workforce.

Currently few options exist to transport essential supplies. The African Union transportation systems, hiring external logistics agents, using partner organisations' transportation system (e.g. World Food Programme), or Member States' transportation systems.

For all options, key areas must be considered:

- Ensuring the presence and use of *cold chain infrastructures* in order to deliver medical supplies without compromising their quality,
- Tracking commodities and movement end to end,
- Ensuring all documentations are in order to complete customs clearance,
- Minimizing costs of storage and warehousing at various ports, and
- Planning and preparing for the necessary storage space.

The African Union Continental Logistics Base can serve as the main site for storage for mid and long-term periods and/or for supplies whose

delivery point is near the location of the base. The recommended storage mechanism is to gain support from the Member States which will be the recipients of the supplies. Additional options include utilizing partner organization storage facilities, airport storage facilities and setting up temporary storage areas near the site of the emergency.



During emergency response, there is high potential for medical supplies to unexpectedly become hazardous and contaminate their surrounding once their shelf life is exceeded. Unless these supplies are monitored and disposed of properly, they may risk human lives and contaminate the environment. Accordingly, the supply team must provide guidelines to the frontline teams and responsible entities on the proper disposal of supplies. Waste management may involve different procedures including burning, recycling, or chemical treatment.<sup>14</sup>



#### **3.1 Basic Principles of Stewardship**

All aspects of the financial management relating to Africa CDC must align with the African Union financial rules and regulations. Accordingly, the supply chain management team will have to adhere to the core principles and operational requirements contained within the financial rules and regulations while working closely with the financing division. Some of these rules are:

• **Proper approval for expenses**—as a fluctuation of costs are expected in times of emergencies, additional expenses will be incurred which may exceed the budgeted amounts. In this instance, it is critical to follow proper authorization and the relevant command

<sup>13</sup>Article 26 of Plant Property and Equipment policy.

<sup>&</sup>lt;sup>14</sup>Although the African Union Plant Property and Equipment Policy has a protocol to discard property, medical supplies will require special procedure and care that will be highlighted in the Africa CDC supply chain preparedness and response manual.

chains for approval of *any* expense in order to discourage financial irregularities.<sup>15</sup>

- Proper documentation handling—with respect to the principle of keeping accounting<sup>16</sup> records under the financial rules and regulations, necessary documents or records along each supply chain work-streams must be documented by the supply chain team. Documentation will need to cover a variety of information related to transactions such as, but not limited to, goods receipt notes (for both donated or procured medical supplies), commercial invoices, specifications of supplies procured or acquired, proformas, delivery notes, purchase orders, etc.
- Regular verification of inventory—quantity of all supplies, equipment or properties that are either acquired through donation or procurement must be controlled<sup>17</sup> by responsible supply chain team members. This includes the physical verification that must be made at regular periods, tracking of supplies and equipment and verification of transfer/or delivery of medical supplies and equipment.

#### 3.2 Sources of Funds

The Emergency Preparedness and Response Division requires flexible and agile financing mechanisms to prepare for and respond to public health emergencies. Accordingly, it includes two main sources of funds:

- Regular budget, and
- Emergency Reserve fund.

**Regular budgeting** process will mostly be used for ongoing preparedness activities such as stockpiling, maintenance, inventory management, storage, and other tasks. It will be incorporated in the Emergency Preparedness and Response Division planning and budgeting process.

<sup>&</sup>lt;sup>15</sup>African Financial Rules and regulations, Part XI—Financial Irregularities, Article 59.

<sup>&</sup>lt;sup>16</sup>African Financial Rules and regulations, Part XIII—Accounting records, Article 63–66.

<sup>&</sup>lt;sup>17</sup>African Financial Rules and regulations, Part X—Supplies, Plant, Property and Equipment, Article 55.

**Reserve funds** will cover the emergency outbreak response. Due to the unpredictability of the occurrence and size of emergency, there is a need to ensure funding is mobilized in the reserve fund to respond timely. Reserve funds can be set aside from the regular budget or pulled from Member States, partner organizations, philanthropic agencies, as well as individuals.

The core responsibility of the supply chain team in this instance is to ensure two things:

- the availability of adequate reserve fund based on forecasts modelled on past emergency response experience, regular cost driver analysis, and relevant assumptions on key statistics such as inflation and population growth. A healthy balance must be maintained in the reserve funds to allow for unanticipated disbursement, as such consistent mobilization of resources must be highlighted by the supply chain team where funds are inadequate and,
- all necessary documentation and information indicated in the preparedness phase are made available to concerned management to allow for quick disbursements of funds.





## Partnership Engagement and Coordination

Responding to public health emergencies requires robust coordination both internally, within the Africa CDC divisions and organs of the African Union, and externally with relevant partners and Member States. Mapping of potential stakeholders is essential in order to coordinate and collaborate with working groups and have a clear sense of roles and responsibilities, to share vital information, and to avoid duplication

ACTIVITY	INTERNAL STAKEHOLDER	EXTERNAL STAKEHOLDER
TRIGGER	Surveillance and Disease Intelligence Division — Epidemiological data collected through the RCC's can serve as an input to trigger public health emergency	WHO and other partners can declare a public health emergency from its own surveillance and risk assessment teams.
		Members States public health institutes can declare public health emergencies
COMMODITY FORECASTING	Surveillance and Disease Intelligence Division though the RCC's can collect various epidemiological data that can be used as inputs for forecasting.	WHO and other partners can share various tools and models or forecasting demands for medical supplies and equipment.
	Predicted demands for medical supplies can come <b>from the</b> <b>divisions of the Africa CDC</b>	Member States public health institutes can provide critical supplies needs
*		
PROCUREMENT	African Union Procurement division ensures procurements are made as per The AU Procurement Guideline	WHO/UN agencies that has vetted suppliers list that are capable of supplied medical supplies as per the quality standards
	<ul> <li>Africa Union Finance division will audit procurement activity and must comply with The AU Financial Rules and Regulations</li> <li>African Union Legal division will evaluate MOU's and procurement contracts, donates agreements/ framework agreements.</li> </ul>	Various actors that have entered into a framework agreements with the Africa Union commission for the supply of goods/services
		African Medical Supplies Platform

of effort. Below is a prototype mapping of potential stakeholders along the supply chain work streams. Based on the key components of the supply chain preparedness and response processes, the roles and potential contributions of these stakeholders can be mapped in the below figure.

#### **Roles and potential contributions of stakeholders**

ACTIVITY	INTERNAL STAKEHOLDER	EXTERNAL STAKEHOLDER
WAREHOUSING &	• African Union Logistics Base as part of an African Union initiative there is continental base which has designated place for the storage of medical equipment and supplies	UN organs like WHO, UNICEF, WFP have facilities across Africa can temporarily be used or shared.
	Africa Union Peace and Security	
STORAGE	<ul> <li>Peace and Support Operations Division (PSOD) for storage</li> <li>Other African Union institutions and agencies who have warehouse facilities suitable for medical supplies storage.</li> </ul>	Members States or that are willing to avail storage sites in cases of emergency.
	Africa Union Peace and Security - Peace and Support Operations Division (PSOD) logistics capabilities can be used to transport medical supplies	UN organs like WHO, UNICEF or WFP other partners have logistics capabilities that can be shared.
LOGISTICS		
		Members States embassies and customs authorities can assist in the delivery/clearance of medical supplies will be subject to various customs regulations.

# Performance Management Systems

Strengthening the Emergency Preparedness and Response activities will require a robust performance management system. It requires proper target setting and planning as well as regular monitoring to ensure goals and objectives are being met.

## Performance Management System for Emergency Preparedness and Response

Performance Management System			
		Emergency Preparedness and Response Target Metrix	Need to set measurable and clear targets that assist in achieving the overall goal of ensuring proper emergency preparedness and response
	Target Setting and Planning	Intervention/ Action Planning	Develop realistic actions and interventions to achieve the assigned targets
		Resource Allocation	Allocate necessary resources such as finance, human resources, supplies to achieve the assigned targets
2	Monitoring	Follow up and Report	Ensure regular reporting period to assess the progress
		Accountability	Reward good performance and discourage negative performance results
3		Administrative and Management Evaluation	Assess and evaluate the administrative and management aspects of the emergency response
	After Action Review Evaluation	Technical Deliveries Evaluation	Evaluate if emergency response was of quality, in required quantity and timely
		Lessons Learnt	Document the lessons learnt for future emergency outbreaks to prevent challenges to occur in future response

In target setting, the Key Performance Indicators (KPIs) to be developed should cover each requirement for Emergency Preparedness and Response. Challenges encountered in working towards each target can then be clearly identified and addressed. These KPIs must be developed to be SMART (Specific, Measurable, Advisable, Relevant, and Time-bound), and must include implementation plans with regular monitoring and reporting for relevant discussion and decision making.

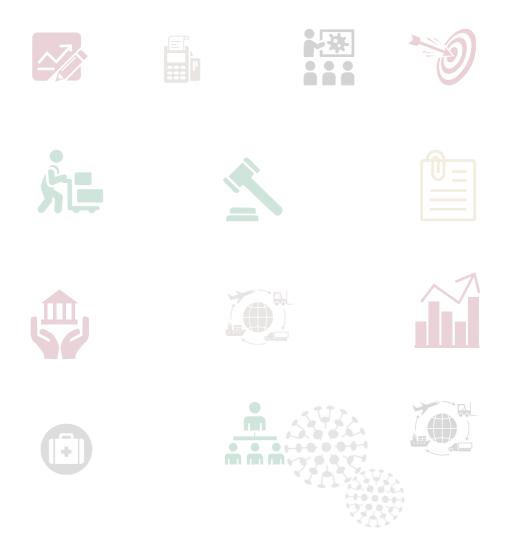
#### Key Performance Indicators that could be used for Emergency Preparedness and Response activities

Key Activity Component		Potential KPIs	Monitoring Period
	Supplies Forecasting	Supplies forecast undertaken yearly based on two prioritized public health threats and what Africa CDC can contribute	Yearly
Emergency Preparedness	Procurement and Framework Agreement	Stockpile at least 15% of fore-casted quantities based on the top two public health threats and undertake required framework agreement for products and services	Bi-annual
Preparedness	Logistics and Stockpile		
	Simulation Exercise	Undertake annual simulation drill in Africa CDC in collaboration with Regional Collaborating Centres and interested member states as well as partners	Yearly
	Emergency Assessment	Emergency assessment completed within 72 hours of activation of emergency	5 days after activation of emergency
	Activation of Advisory/ Technical Working Groups	Establish and undertake regular meetings undertaken by the Advisory/Technical Working Groups	Monthly after activation of emergency
Emergency Response	Activation of Emergency Procurement	Tracking and monitoring implementation of all terms and conditions agreed in framework agreements with suppliers/manufacturers within 3 months	Monthly after activation of emergency
	Acquisition of Supplies	Disbursement of received supplies to member states within 2 weeks of obtaining from partners	Weekly after activation of emergency
	Emergency Logistics for Delivery	Deliver required supplies to the affected area within 10 days from the date of request.	Weekly after activation of emergency

After establishing the indicators, it is important to consistently monitor progress against each indicator by evaluating the progress along the timeline set for each KPI. A management dashboard can be developed for simple reporting of progress and to easily highlight items that require management actions and decisions. Furthermore, effective monitoring and reporting should have the following key components to ensure deep understanding of the fundamental issues and to facilitate problem solving.

- Performance rating mechanism to indicate the status on each indicator (e.g. on track, slight deviation, serious deviation).
- Challenges identified which may hinder progress on the intended KPI to proactively problem solve the challenge.
- Action points or way forward for management and key stakeholders.









#### Africa Centres for Disease Control and Prevention (Africa CDC), African Union Commission

Roosevelt Street W21 K19, Addis Ababa, Ethiopia