

## Policy Analysis

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# Lusaka Call-to-Action 2022: A Call to Strengthen Public Health Emergency Operation Centers in Africa

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## Abstract

In July 2022, on the sidelines of the 41st Ordinary Session of the Executive Council of the African Union and the 4th Mid-Year Coordination Summit in Lusaka, Zambia, Heads of state and government, and leaders of delegations of African Union Member States called on member states, African Union through Africa CDC, and partners to recognize, prioritize, and accelerate the establishment and strengthening of public health emergency operation centers (PHEOCs) in the context of health security and in line with Africa's new public health order. Implementing the declaration requires a multi-dimensional approach that spans across governance, operational capabilities, partnerships, workforce development, and sustainable financing.

African countries are increasingly plagued by public health emergencies, acutely characterized by high morbidity and mortality outcomes. Effective coordination and improved management of the situation requires the implementation of public health emergency operation centers (PHEOCs) running according to minimum common standards.<sup>1</sup> The PHEOC concept represents a nascent best practice in the spectrum of actions required to establish a comprehensive emergency management program and is critical to the fulfillment of the International Health Regulations<sup>2</sup> (2005) obligations by member states. Its implementation integrates traditional public health services into an emergency management model. Functional PHEOCs are typically well-equipped, physical (and more recently, virtual), tech-savvy hubs within which emergency management resources are co-located and directed. These hubs provide a platform for joint risk assessment, planning, coordination, and the dissemination of crucial information and resources essential for effective emergency management. Where fully implemented, PHEOCs mitigate common setbacks in emergency situations such as lack of clear leadership, delayed decision making, mismanagement of response resources, poor communication, ineffective coordination, and duplication of efforts by the various responding jurisdictions. Coordination of public health response to the coronavirus disease (COVID-19) pandemic was widely reported as suboptimal,<sup>3,4</sup> a situation that robust, interlinked, and pretested PHEOCs systems could avert by ensuring better coordination of information and resources across sectors and the communities being served.

The veritable use of PHEOCs in coordinating preparedness and response efforts remains illusional without political commitment. Commendably, Heads of State and Government of the African Union (AU) have consistently demonstrated strong public health leadership by championing various initiatives and embracing public health instruments to tackle health threats on the continent. In recent past, AU Heads of State and Government have championed the establishment of the Africa Centers for Disease Control and Prevention (Africa CDC), one fast-tracked by the 2014–2016 Ebola crisis in West Africa. The Africa CDC as a continental public health institution was instrumental in mounting a coordinated continental response for the COVID-19 pandemic. AU Heads of State and Government also ensured the continuous improvement of preparedness and response to infectious disease threats and other emergencies on the continent as evidenced by their championing of multiple public health initiatives, including domestic financing, nutrition, HIV/AIDS, malaria, and climate change. The African Health Strategy 2030, which provides direction on improving health on the continent,<sup>5</sup> and the Agenda 2063,<sup>6</sup> a continental framework for inclusive growth and sustainable development over a 50-year period, collectively define public health as a critical pillar of the continent's development agenda.

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## About Lusaka Declaration 2022

On the sidelines of the 41st Ordinary Session of the Executive Council of the African Union and the 4th Mid-Year Coordination Summit in Lusaka, Zambia (July 16, 2022), Heads of State and

Government and leaders of delegations called on all AU member states and partners to recognize, prioritize, and accelerate the establishment and/or strengthening of PHEOCs as a critical institutional pillar within the health security framework of the continent. This was premised on the recognition that public health actions toward the several health emergencies Africa faces should follow a standard set of measures that include PHEOCs, to address the lack of emergency coordination structures and capacity to anticipate and respond quickly to any disease and health threats; the inefficient split of response between multiple actors without adequate linkage and coordination among stakeholders and sectors; the need for effective coordination of preparedness and response through PHEOCs as a critical element for managing public health emergencies; and in fulfilment of the International Health Regulations (2005) obligations. The Lusaka Call-to-Action,<sup>7</sup> a significantly high political and diplomatic statement, was jointly led by H E Hakainde Hichilema, President of Zambia and H E Moussa Faki Mahamad, the Chairperson of the African Union Commission (AUC) with technical support from Africa CDC. The declaration called for the establishment of functional PHEOCs in each of the 55 member states by 2026. Member states were urged to develop country-level roadmaps and mobilize the necessary resources for accelerated PHEOC implementation in line with Africa's New Public Health Order. The AUC through Africa CDC was exhorted to institute a continent-wide coordination mechanism and annually inform AU policy organs on progress until year 2026. Since then, ministers of health in the southern<sup>8</sup> and central<sup>9</sup> African regions have met to discuss regional operational mechanisms. Implementing the declaration requires a multi-dimensional approach that spans across governance, operational capabilities, workforce development, and sustainable financing.

### Outlook on PHEOC Implementation in Africa

While most PHEOCs on the African continent were established in the post-West Africa Ebola era,<sup>10</sup> earlier initiatives are recorded in Nigeria and Uganda. The establishment of Nigeria's national Polio Emergency Operations Centre (EOC) in October 2012 was predicated on the re-vamped global emergency status for polio in 2012.<sup>11</sup> In Uganda, the Ministry of Health established its national PHEOC in September 2013, one triggered by the country's vulnerability to public health emergencies given its geographic location next to the Congo Basin epidemic hot spot, placement within multiple epidemic belts, high population growth rates, and refugee influx.<sup>12</sup> The functionality of a PHEOC relies on the comprehensive implementation of 4-pronged core components: (1) policy, plans, and procedures; (2) physical infrastructure and information, communication, and technology (ICT) infrastructure; (3) data and information systems; and (4) skilled human resources to meet the minimum requirements stipulated in the framework for PHEOCs.<sup>1</sup> Plans and procedures clarify strategic authorities, operational modalities, and tactical procedures of the PHEOC. Physical infrastructure should be environmentally secure, accessible, spacious, and survivable in the event of an emergency. The ICT component of the PHEOC enables internal and external communications. Information systems and data standards should cater for the triad of information systems security—confidentiality, integrity, and availability of emergency operations data. The successful operation of a PHEOC is reliant on competent, trained staff. The staffing arrangements should be able to maintain continuous 24/7 PHEOC operations. Presently, the implementation of these core components of a PHEOC is suboptimal among

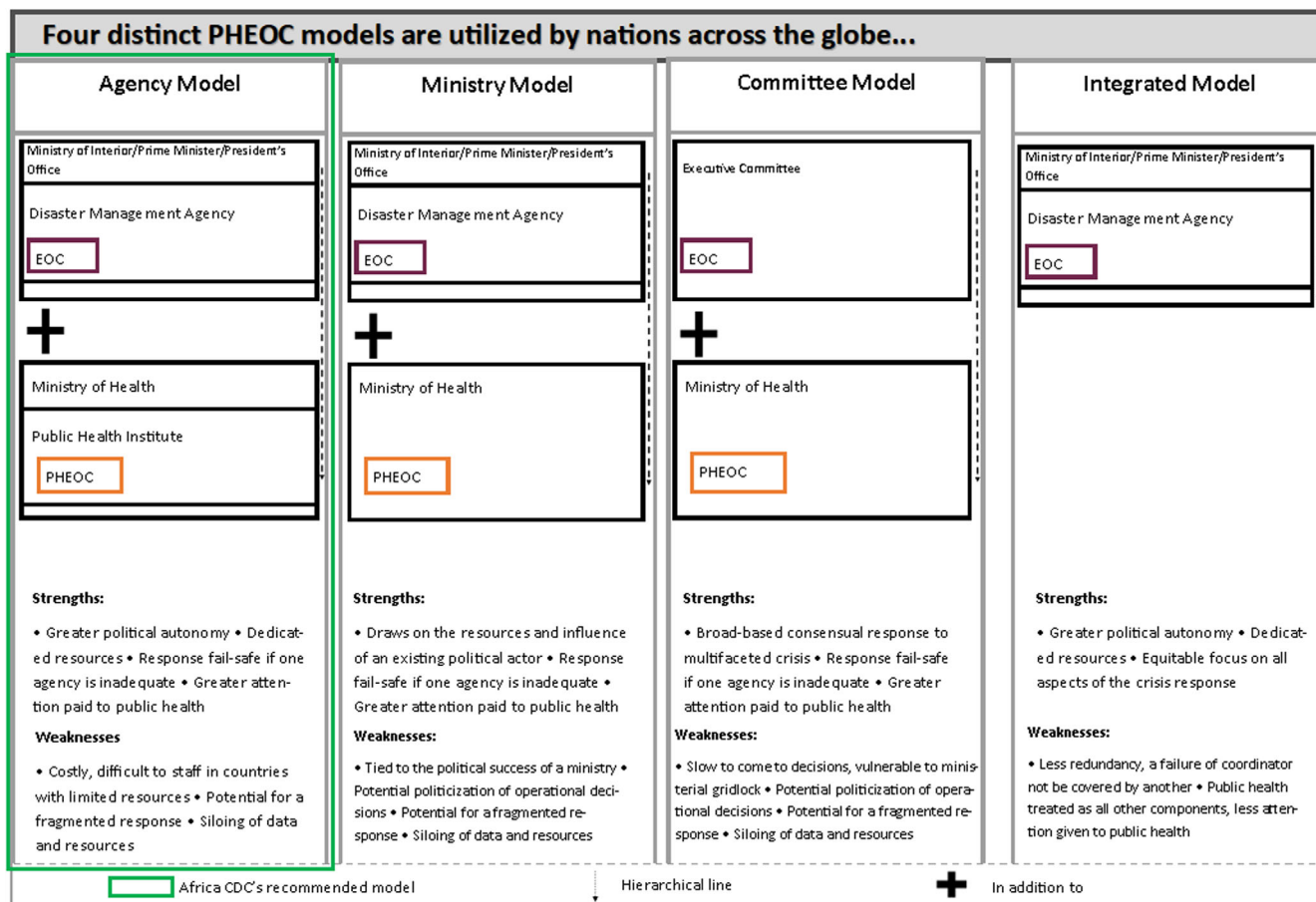
AU member states. In a 2021 survey, a self-reported implementation status showed that AU member states are at different stages of establishing PHEOCs with significant challenges in securing required resources to position PHEOCs as the nerve centers for coordinating preparedness and response efforts. While many member states have designated facilities to serve as PHEOCs, most of these facilities are inadequately equipped and short of skilled human resources. Participants also highlighted the systemic misunderstanding between routine administrative responsibilities and the emergency coordination approach to the Incident Management System (IMS); inconsistent knowledge among PHEOC surge staff, particularly finance and administration; and nonexistent legal mandates that back the operations of PHEOCs in many countries. The 2022 Lusaka call-to-action on strengthening PHEOCs in Africa, therefore, represents a timely action by Heads of State and Government to drive PHEOC implementation as a component of the continent's health security agenda.

### Governance

The multifaceted consequences of health emergencies, as seen with the COVID-19 pandemic, demonstrate how health crises can quickly become economic, social, humanitarian, and security threats. This calls for mainstreaming health security agenda in national and regional security discourse. Political leaders must be seen to prioritize the health security of the people by demonstrating ownership and championing public health causes. The duty and mandate of ministries of health and National Public Health Institutes (NPHIs) to foster strong, resilient, and adaptive health systems should incorporate PHEOCs as a critical element for coordinating lifesaving data, information, and resources that help member states prepare better and respond effectively to public health emergencies. Anchorage of the PHEOC is a governance decision that must be made, taking into account country-specific context. Countries around the world employ 1 of 4 coordination models that include Agency, Ministry, Committee, and Integrated Models (Figure 1). Africa CDC advocates for an Agency Model where PHEOCs are administratively located within NPHIs. This allows for greater political autonomy and dedicated resources for increased focus on preparedness and response to health emergencies. Additionally, member states are expected to institute policy and steering committees to provide strategic oversight and technical expertise, respectively. Actions at the continental level should be centered on coordinating and harnessing resources to support member states. Commissioning a task force could be a converging point for industry resources to contextualize standards and serve the financial and technical needs of member states as exemplified by previous initiatives.<sup>13</sup> The platform could additionally develop a continental scorecard to monitor progress and enable reportage to all relevant stakeholders. Where formed, the platform should organize technical and financial resources in a hierarchical order of policy, steering, and technical committees while delineating technical expertise by the core components of a functional PHEOC.

### Operational Capabilities

As a starting point, PHEOCs must be provided with the mandate to operate. In many settings, this mandate is explicitly stated within the NPHI establishment act, the country's national public health act or as a standalone declaration. These legal instruments should state the role of the PHEOC, its coordination, and funding mechanisms within the broader national disaster management



**Figure 1.** Various PHEOC anchorage and coordination models exist. Source: Adapted from a Dalberg Consulting report

landscape. Country-led steering committees should work together to develop national PHEOC implementation roadmaps. The roadmaps should provide realistic and measurable targets for each of the 4 core components of a functional PHEOC. As a rule-of-thumb, all repeatable tasks within the PHEOC should have written procedural guides and templates. Redundancy plans should be developed to ensure the continuity of operations in the event that the facility, personnel, and communication systems are unable to function. Alternative sites should be identified and equipped as backup PHEOCs. Equipping PHEOCs should adopt an outcome-based approach, where each piece of equipment is procured based on a predetermined value addition to the operations of the PHEOC. Data and information are the bedrock of any functional PHEOC, hence the necessary mechanisms for data sourcing, collection, analysis, and generation of data-driven evidence should be in place while ensuring the security and safety of the data. A mechanism for continuous flow and interpretation of epidemiological data, overlaid on contextual information should be part of such a process. The rapidly sprouting technology space should be leveraged to develop or adapt digital platforms that document the life trajectory of public health events from detection through verification, risk assessment, grading, response, and recovery. Such platforms, generally referred to as Emergency Management Systems (EMS), must be built on existing workflows to mitigate redundancy. PHEOC staff should be sufficiently skilled and trained in their job description, 2–5 staff per position. Training should provide grounded understanding of the Incident Management

System as an all-hazard incident management approach that enables PHEOCs to implement an integrated organizational structure that matches the complexities and demands of single or multiple incidents without being hindered by regular institutional bureaucracies.

**Partnerships and Networks**

Partnerships across public and private sectors are emerging as the 21st century model for sectoral development, made possible by the increasing privatization of government functions that have translated into an exponential wealth base of private sector enterprises. Africa’s new public health order<sup>14</sup> stipulates partnership mechanisms that ensure locally defined health priorities are respected. Coordination is crucial to ensure efficiency while mitigating fragmentation and duplication of efforts. In 2012, the World Health Organization (WHO) established the Public Health Emergency Operations Centre Network (EOC-NET) aimed at promoting best practices and standards for PHEOCs and providing capacity support to member states. Africa CDC is an active partner of the EOC-NET and has been involved in the development of evidence-based guidance for establishing and operationalizing functional PHEOCs. AU member states have benefited from a wide array of partner projects targeted at establishing and/or strengthening PHEOCs. These partners, previously working independently and in isolation, limited the opportunity for collaborative work and risked duplication of

efforts. There were missing opportunities in leveraging institutional strengths to drive the common, yet disconnected objective, of strengthening public health emergency management programs on the continent. To foster a collaborative workspace, a growing number of partners have continued to join a forum first initiated in May 2017 between Africa CDC, WHO-AFRO, and the US-CDC. Through this initiative, AU member states have been supported in the areas of training and simulation exercises, buildings, and equipping PHEOC facilities and development of PHEOC operational documents. At the peak of the COVID-19 pandemic, the forum delivered the only Public Health Emergency Operations Centre PHEM virtual sessions spanning over 56 weeks, with a wide reach of audience beyond the African continent. The sessions were designed as just-in-time virtual trainings to reinforce the capacity of workforce needed to better position PHEOCs as coordination hubs of the extremely complex multisectoral COVID-19 pandemic response.<sup>15</sup> Outcomes from the regional meeting between member states, Africa CDC, and key partners in June 2021 culminated in the development of a multi-stakeholder 5-year strategic plan for PHEOC strengthening.<sup>16</sup> As AU member states begin to define and/or reassess local priorities for PHEOC implementation, it is important to map and engage partnerships at subnational, national, and international levels. The private sector and civil society partnerships are an important, often overlooked, leverage in addition to traditional stakeholders.

### Financing

The need for predictable and sustainable financing of public health preparedness and response programs has gained recognition in recent times.<sup>17</sup> Country-level and country-owned financial investments for establishment and maintenance of preparedness and response capacities under the International Health Regulations (IHR) (2005) remain crucial to preventing and mitigating future infectious disease threats. The implementation of PHEOCs requires planning and allocating funds for fixed and recurring activities. The fixed cost categories include but are not limited to costs for construction and purchase of infrastructure, ICT investments, data, and information systems. Recurring cost categories include but are not limited to staff remunerations, meeting and training logistics, consultancy fees, equipment maintenance, materials, travel and transport, and surge staff costs. It is important that countries designate and fund budget lines for both fixed and recurrent costs while ensuring a broad-based external funding support with no more than 20% from a single source. Advocacy tools such as performance scorecards and implementation plans should form the basis for resource mobilization at all levels.

### Workforce Development

The continuous operations of the PHEOC require trained and equipped staff. The diversity of required skillsets should be assessed through an ongoing review of the PHEOC scope, aided by training, simulation exercises, and reports from after-action review meetings. A competency-based curriculum that includes public health emergency management principles, PHEOC operations, and Incident Management System (IMS) should be developed. Training should begin to embrace the science of emergency management as the model for defining, implementing, and assessing emergency management functions. Opportunities exist for countries to adapt existing training curricula, identify, and

train staff across various fields of discipline as part of a roster of surge capacities. Model training programs have supported advanced-level training such as the Africa CDC<sup>18</sup> and US-CDC<sup>19</sup> PHEM fellowships. The dearth in skilled PHEOC workforce requires the setup of similar training programs at regional and country levels. Study tours and exchange programs should equally be established to broaden the knowledge base of PHEOC staff. High-performing PHEOCs on the continent should be identified and supported to function as centers of excellence for training and mentorship. Simulation exercise programs should be established and conducted frequently to assess the readiness of PHEOCs and the broader emergency management program. Establishing networks of PHEOC personnel at regional and country levels can enhance continuous learning and experience sharing.

### Monitoring and Evaluation

To improve the quality and efficiency of a PHEOC, monitoring and evaluation should be embedded in the planning and implementation of PHEOC activities. Simulation exercises and live activations should be accompanied by action reviews to provide actionable recommendations, identify areas for improvement, and, where necessary, implement corrective and improvement measures. In addition, it is important to establish mechanisms for a periodic progress update to policy organs at national and regional levels.

### Conclusion

Functional PHEOCs enhance coordination of public health preparedness and response efforts. The future for PHEOC development on the African continent will depend on a multifaceted strategy that encompasses governance, partnerships, operational capabilities, workforce development, and sustainable financing mechanisms.

**Competing interests.** The authors declare no competing interests.

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