Strategic Plan

For Strengthening Public Health Emergency Operations Centres in Member States of Africa and Eastern Mediterranean Region (2023–2027)
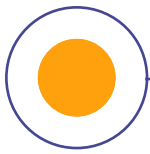
A joint multistakeholder plan
January 2023

World Health Organization
African Region

World Health Organization
Eastern Mediterranean Region

African Union

AFRICA CDC
Centres for Disease Control and Prevention
Safeguarding Africa's Health

ECOWAS
CEDEAO

CDC
U.S. Department of
Health and Human Services
Centers for Disease
Control and Prevention

UK Health
Security
Agency

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GATES foundation

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For Strengthening Public Health Emergency
Operations Centres in Member States of Africa
and Eastern Mediterranean Region
(2023–2027)

A joint multistakeholder plan
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Strategic plan for strengthening Public Health Emergency Operations Centres in Member States of Africa and Eastern Mediterranean Region (2023–2027)

Designed in the WHO African Region
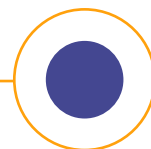
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Acknowledgements

Abbreviations

AAR: After-action review/report

Africa CDC: Africa Centres for Disease Control and Prevention

ARM: Annual Review Meeting

BMGF: Bill and Melinda Gates Foundation

COVID-19: coronavirus disease 2019

EOC-NET: Emergency Operations Centre Network

EVD: Ebola virus disease

ICT: Information and Communication Technology

IHR: International Health Regulations

IMS: Incident Management System

IT : Information Technologys

JEE: Joint External Evaluations(s)

MoU: Memorandum of Understanding

M&E: Monitoring and Evaluation

MoH: Ministry of Health

MS: Member States

NPHI: National Public Health Institutes

PHEs: Public Health Emergencies

PHEM: Public Health Emergency Management

PHEOC: Public Health Emergency Operations Centre

PHEM-F: Public Health Emergency Management Fellowship

RKI: Robert Koch Institute

RRTs: Rapid Response Teams

SIMEX: Simulation Exercisea

SOP: Standard Operating Procedure

ToR: Terms of Reference

ToT: Training of Trainers

TWG: Technical Working Group

US CDC: United States Centers for Disease Control and Prevention

UKHSA: United Kingdom Health Security Agency

WAHO: West African Health Organization

WHO: World Health Organization

WHO AFRO: World Health Organization Regional Office for Africa

WHO EMRO: World Health Organization Regional Office for the Eastern Mediterranean

Executive Summary

Public health threats such as disasters and public health emergencies (PHEs) including disease outbreaks, conflicts, droughts, and civil wars continue to be a major concern for Member States in Africa and Eastern Mediterranean Region. The International Health Regulations (IHR (2005)) require States Parties to develop, strengthen and maintain their capacity to respond promptly and effectively to public health risks and emergencies (PHEs). The Member States (MS) and partners, made a substantial investment leading to noteworthy progress in improving the emergency preparedness and response capabilities, especially after the largest Ebola virus disease (EVD) epidemic in West Africa in 2014–2016.

The Public Health Emergency Operations Centre (PHEOC) is a hub for joint risk assessment and planning, and coordination of   information and resources for effective emergency management. Many countries established and operationalized their PHEOCs in the aftermath of EVD epidemic in West Africa.

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An in-depth review of the key achievements in implementing PHEOC by MS to further strengthen the emergency management capability from 2015 to 2021, as well as a PHEOC survey, were conducted in May 2021 to determine the progress made and to identify key challenges in PHEOC implementation. According to these findings, 36 MS from the African Region and 10 MS from Eastern Mediterranean Region have established a PHEOC. Results showed that MS have varying PHEOC implementation capabilities. Hence, MS and partners agreed to develop a joint strategic plan (SP) to strengthen PHEOCs by harmonizing the efforts of the various stakeholders and assisting resource mobilization and addressing the gaps to improve management of PHEs. Subsequently, WHO, Africa CDC, the West African Health Organization (WAHO), United States Centers for Disease Control and Prevention (US CDC), United Kingdom Health Security Agency (UKHSA), Bill and Melinda Gates Foundation (BMGF), and Robert Koch Institute (RKI) worked with MS to develop this joint strategic plan to strengthen the PHEOCs, with the aim of having fully functional PHEOCs in 90% of MS in the African and Eastern Mediterranean Regions between 2023 and 2027.

To achieve this goal, the SP identified five strategic objectives across the core components of a PHEOC. The primary areas of focus under the PHEOC policy, plans, and procedures are finalization, validation and operationalization of the documents including the legal framework, handbook, multi-hazard response plan and other pertinent plans and procedures. The PHEOC and surge personnel capacity development is another key focus area to ensure trained and skilled personnel are available to support emergency management through the PHEOC. This will be ensured by providing regional-level capacity-building activities (training of trainers, national-level training, online training, PHEOC/PHEM fellowship, simulation exercises and mentorship). The information system management capacity of the PHEOC, as an essential requirement, will be strengthened by defining data and information requirements, developing data and information standards, and deploying software to assist in data collection, analysis, and visualization. To facilitate communication and information-sharing, appropriate communication and information technology equipment (computers, plasma screens, printers, copiers, scanners, internet modems, internet security, etc.) and office supplies will be mobilized and deployed.

US$ 181, 637, 498 is the total estimated budget required to execute the activities throughout the plan in both Regions.

Furthermore, PHEOC "Centres of Excellence" will be established to serve as regional reference centres for MS and other stakeholders in strengthening and establishing fully functional PHEOCs, facilitating experience sharing especially on PHEOC operations and emergency management, PHEOC routine and surge staff capacity development through initiatives including fellowships, mentorship, study tours, etc.

Periodic performance review reports, meetings as well as mid-term and end-term evaluations are the mechanisms to be employed to track the performance measures at country and regional levels. A tool will be developed to ensure that a standard review approach is utilized in assessing performance across the core components.

The total estimated budget required to execute the activities throughout the plan in both Regions is US$ 181, 637, 498. The budget will cover costs related to renovating the PHEOC facilities, procurement of information and communication technology equipment, salary and daily subsistence allowances for experts, workshop participants, training and simulation exercise programmes and establishing regional PHEOC "Centres of Excellence", among others.

1 Introduction

"A functional public health emergency operations centre (PHEOC) is critical in assisting MS in preparing for and responding to public health emergencies.

Public health threats such as disasters and public health emergencies (PHEs) continue to be a major concern for African Member States (MS). Ebola virus disease (EVD), COVID-19, conflicts, droughts, floods, cholera, Rift Valley fever, Crimean-Congo haemorrhagic fever and yellow fever, among others, are major public health threats in the African continent. Similarly, countries in the Eastern Mediterranean Region are frequently affected by various public health emergencies including disease outbreaks, natural disasters, conflicts, and civil wars.

Previous experiences, particularly the EVD outbreak in West Africa from 2014 to 2016, revealed critical gaps in preparation for and response to public health emergencies. One of the key recommendations following this, was to strengthen preparedness and response to future threats. The International Health Regulations (IHR (2005)) require State Parties to develop, strengthen and maintain their capacity to respond promptly and effectively to public health emergencies (PHEs). A functional public health emergency operations centre (PHEOC) is critical in assisting MS in preparing for and responding to public health emergencies. A PHEOC acts as a hub for the coordination of information and resources.

Following the EVD outbreak in West Africa from 2014 to 2016, MS in the Region began establishing and strengthening public health emergency operations centres (PHEOCs) to improve their capacity to coordinate their response to PHEs. In 2015, the World Health Organization Regional Office for Africa (WHO AFRO) officially launched a regional emergency operations centre network (AFR-EOCNET) to support this initiative. Other key partners[1] joined WHO to assist MS in Africa and the Eastern Mediterranean Region to establish and strengthen their PHEOCs, providing technical assistance to develop key PHEOC legal frameworks, operational and functional plans and procedures, capacitating the health PHEOC routine and surge staff through training and exercises, and establishing, upgrading and/or converting existing locations into a PHEOC facility, procuring and distributing office supplies and Information and Communication Technology (ICT) equipment (computers, printers, scanners, smart television sets, LCD projectors, etc.).

Member States accross Africa and the Eastern Mediterranean Regions have made noteworthy progress in improving their emergency preparedness and response capability, but there are still gaps in having fully functional PHEOCs. The findings of the MS Joint External Evaluations (JEE), assessment of PHEOC implementation status, bi-regional (MS, WHO AFRO and EMRO and key partners) meetings and other findings indicated that MS are at various levels of capacity, ranging from limited to full capacity.

Furthermore, the prominent level of interest from partners and donors in strengthening countries' emergency management capacities through the establishment of fully functional PHEOCs, as well as the inclusion of emergency response operations as a core capacity in JEE/IHR recommendations, serves as a driving force to support the initiative.

Despite the efforts of MS and partners to strengthen PHEOCs in Africa and the Eastern Mediterranean Region, recently conducted assessments, review of relevant documents and bi-regional meetings revealed gaps in the full functionality of PHEOCs . These hampered the
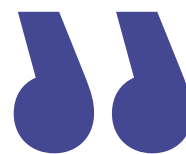
The plan's main purpose is to guide PHEOC implementation in MS of the African and Eastern Mediterranean Regions toward meeting the minimum requirements or core capacities of a PHEOC.

[1] WHO, Africa CDC, WAHO, US CDC, UKHSA, BMGF and RKI.

efficiency of coordinated responses during the management of the COVID-19 pandemic, EVD epidemic, humanitarian crises and other PHEs. Even though some MS have strong PHEOC implementation capabilities, in others these are still limited. In partnership with other institutions, WHO AFRO, WHO EMRO and Africa Centres for Disease Control and Prevention (Africa CDC) started devoting resources to assist MS in strengthening their PHEOCs to effectively manage any public health threat. The MS and partners agreed to develop a joint strategic plan to harmonize the efforts of the various stakeholders towards addressing the gaps regarding effective management of public health threats. Subsequently, MS supported by WHO, Africa CDC, WAHO, US CDC, UKHSA, BMGF and RKI developed this joint multi-stakeholder strategic plan (2023-2027) to strengthen PHEOCs aiming to have fully functional ones in 90% of MS. To achieve this goal, the plan identified key tasks across the four core components of a PHEOC to strengthen capacities in MS (1. Policy, plans and procedures, 2. Data and information, 3. Physical infrastructure and technology, and 4. Skilled, trained personnel). Supporting the development, finalization, validation and implementation of key PHEOC plans and procedures (legal framework, handbook, plans and several functional plans and Standard Operating Procedures (SOPs)); establishing training and exercise programmes in the PHEOC for continuous capacity development and systems' testing (short training, online training, PHEM fellowship, simulation exercises and mentorship); defining information requirements and digitization and, providing regional-level capacity development. In addition, mobilizing and equipping PHEOCs with communication and information technology equipment and office supplies will be the key areas of focus concerning infrastructure. Furthermore, PHEOC "Centres of Excellence" will be established in selected countries and will serve as regional reference centres for MS and other stakeholders in the strive to strengthen and implement fully functional PHEOCs. The centres will facilitate experience sharing, especially in PHEOC operations and emergency management, PHEOC routine and surge staff capacity development through initiatives including fellowship, mentorship, study tours, etc.

The plan's main purpose is to guide PHEOC implementation in African MS and the Eastern Mediterranean Regions toward meeting the minimum requirements for PHEOC core capacities. MS are expected to incorporate the activities and tasks in this strategic plan into their respective National Action Plans. Partners will work with the respective MS to support implementation by providing technical support and assisting them in resource mobilization.
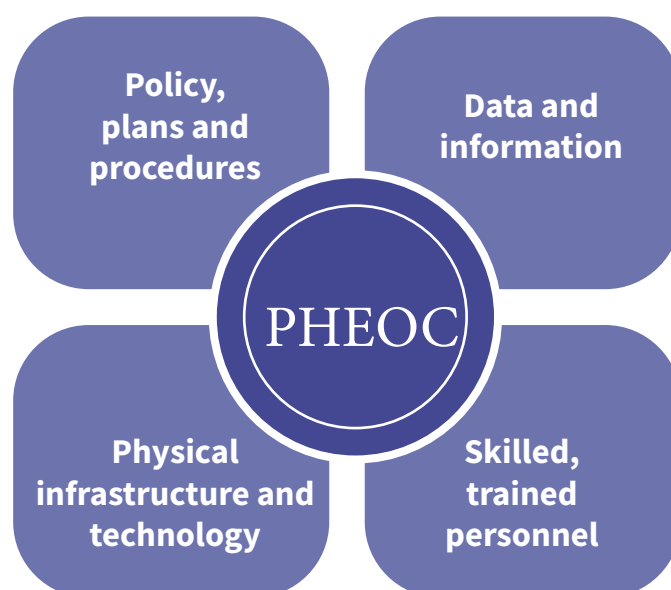
2 Situational analysis of PHEOC implementation in africa and the eastern mediterranean region

A review of the key achievements in implementing PHEOCs by MS and partners was conducted in May 2021 to determine the progress made thus far toward the establishment of functional PHEOCs in African MS and the Eastern Mediterranean Region.

In addition, an assessment of existing PHEOC capacities was conducted in all MS, supplemented by joint (Africa and the Eastern Mediterranean) meetings between May and July 2021 to identify the key achievements and areas that need strengthening. The summary of the key achievements recorded from 2015 to 2021 is presented in Box 1.

Additionally, the areas that need strengthening to improve the coordination of responses to public health threats were identified and summarized in Box 2.

BOX 1.
Key achievements.

- ❯ Functional network of PHEOCs to strengthen national capacities and facilitate communication, exchange of information and best practices.

- ❯ 36 MS established PHEOCs at the national level in the African Region.

- ❯ 12 MS established national-level PHEOCs in the Eastern Mediterranean Region.

- ❯ Key PHEOC documents developed, and published, legal framework guide, handbook, training modules, etc.

- ❯ Countries supported in development of plans and procedures for PHEOC operations.

- ❯ Various national and regional simulation exercises (SIMEX) to test PHEOC systems and staff capabilities conducted.

- ❯ More than 60 regional experts trained as trainers (ToT) in emergency management from MS of the two regions and regional roster of PHEOC experts developed.

- ❯ 56 weekly webinars on PHEOC and COVID-19 management were conducted and MS in both Regions have taken part and shared their experiences.

- ❯ Regional-level robust partnership and collaboration platform involving all key partners established.

- ❯ PHEOC WhatsApp Network with over 90 members of the network sharing information and best practices created.

- ❯ Software (ePHERM) to be deployed to PHEOCs for managing information developed.

BOX 2.
Areas that need strengthening.

- ❯ 20 MS (10 in each region), do not have a PHEOC facility in the African and Eastern Mediterranean Regions.

- ❯ In the Africa and Eastern Mediterranean Regions, only 17 and 10 MS respectively established PHEOCs at the subnational level.

- ❯ About half of the MS in the two regions do not have an approved legal authority for the operationalization of the PHEOC.

- ❯ About half of the PHEOCs in the two regions have a handbook for their operations and management but these are not validated and endorsed.

- ❯ The majority of the PHEOCs have inadequate office supplies and communication technology infrastructure for the workstations.

- ❯ The established PHEOCs lack the software to manage routine and response-related data and information.

- ❯ There are not sufficient , well-trained, and skilled PHEOC and surge personnel in the MS of the regions.

The detailed findings of the document review, bi-regional meetings and PHEOC survey are narrated in sections 2.1, 2.2 and 2.3 of this document.

2.1. Partner support in Africa and Eastern Mediterranean Region (2015–2021)

Since 2015, when the regional AFR-EOCNET was officially launched in Congo-Brazzaville and until 2021, key achievements in supporting the establishment and strengthening of PHEOCs in African MS and the Eastern Mediterranean Region are summarized below by PHEOC core components.

Legal frameworks, plans and procedures

In 2015, the Framework for a Public Health Emergency Operations Centre[2] was published to provide high-level methodical guidance for designing, developing, and strengthening PHEOCs. Additional guiding documents including a Handbook for PHEOC Operations and Management[3] and a PHEOC Legal Framework Guide[4] for the development of a legal framework to authorize PHEOC establishment have been developed and published to provide additional technical guidance to various stakeholders involved in the establishment and strengthening of PHEOCs.

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[2] https://www.who.int/publications/i/item/framework-for-a-public-health-emergency-operations
[3] https://www.afro.who.int/sites/default/files/2021-03/AFRO_PHEOC-Handbook_.pdf
[4] https://www.afro.who.int/sites/default/files/2021-03/AFRO_PHEOC-Legal-Framework-Guide_.pdf

More than 30 MS from the two Regions received technical assistance through the deployment of experts from the regional roster who assisted in developing a legal framework for PHEOC operationalization and a handbook for PHEOC management and operations, and conducted national-level training and simulation exercises.

Human resources, training, and exercises

Regional, national, and remote technical support was provided to support training, and SIMEX were conducted to also support training and exercise programmes. A workshop was held in Brazzaville, Congo, on 22–26, October 2018, to review and finalize PHEOC training materials (facilitator and participant guides and PowerPoint presentations), which were prepared on the basis of the existing PHEOC handbook and legal documents. PHEOC focal points and PHEM experts delegated by MS from Africa attended the workshop.

Regional Trainings of Trainers (ToTs)s program have been designed to build the capacities of countries' response personnel and produce a regional pool of experts to cater for emergency response deployment and assist PHEOC operationalization in another MS based on request and prioritization. Two cohorts of ToTs were conducted and 67 experts were trained from Africa and Eastern Mediterranean Region. Experts from the regional database have been identified and deployed on short-term missions (three to six months) to different MS in the African Region through WHO AFRO and Africa CDC, including many study tours. These experts were instrumental in developing national implementation plan; training of national responders; developing legal frameworks, plans, handbooks, SOPs and conducting SIMEX to test emergency response capabilities.

A series of basic and intermediate-level trainings on IMS and public health emergency management principles was given to PHEOC and PHEM experts from various MS of the African Region in Ouagadougou, Dakar, Dar es Salaam, Nairobi, and Brazzaville. The US CDC hosts a fellowship in PHEM for which 82 persons from Africa and Eastern Mediterranean Region have benefited since its inception in 2014. Similarly, UKHSA and RKI have provided study tour opportunities for experts in MS to broaden their understanding of public health emergency management.

Two regional functional exercises were held in 2018 and 2019 to assess the readiness of PHEOCs in the WHO African Region to respond to PHE. From their designated national PHEOC facility, 17 MS composed of multisectoral and multidisciplinary experts participated . Each MS developed a corrective action plan to address the gaps following the exercises. There was an additional simulation exercise organized in Dakar, Senegal in which six MS from the Region took part.

Communication technology and physical infrastructure

WHO and other partners played a key role in refurbishing existing offices, constructing new buildings, and equipping them with the necessary communication technology infrastructure (computers, printers, copiers, plasma television screens, projectors, etc.) and office supplies (desks and chairs) in countries of the two Regions. By the end of 2021, the partners had supported 36 MS from the African Region and 12 from the Eastern Mediterranean Region, while establishing and strengthening PHEOCs to boost their emergency preparedness and response capabilities.

Regional-level PHEOC network

The Regional Public Health Emergency Operations Centre Network (AFR PHEOC-NET) was officially launched in Brazzaville in 2015. Its main purpose was to serve as a platform for communication and sharing of information and best practices and experiences among countries.

The African Regional PHEOC Network WhatsApp group was created in October 2018 to further strengthen the existing network. The group currently has over 90 members from MS who work as PHEOC focal points and emergency management managers. A website was created to facilitate communication and information sharing among MS and emergency management experts. The Network serves as an important means of exchanging information about disease outbreaks and other emergencies, the implementation progress of PHEOC and its significance in strengthening preparedness and response efforts and other relevant developments.

Partners revitalized existing coordination platforms through their subregional and country-level offices, particularly

through the activation of PHEOC to support the coordination of response activities to various PHEs, including the management of the COVID-19 pandemic.

Furthermore, WHO, the Africa CDC and other key partners held weekly webinars on PHEOC and COVID-19 management intended to improve MS' response efforts through the PHEOC. A total of 56 webinars were organized between April 2020 and December 2021, focusing on a variety of themes. They were attended by over 12 000 emergency management personnel. Representatives from selected MS were invited to share their experiences and lessons learnt in the management of the COVID-19 pandemic through the weekly webinars so that other MS could adapt them to their countries' environment. A virtual community of practice platform was hosted on Discord to enable continuous engagement after the live webinar sessions.

2.2. Existing PHEOC capacities of African Region Member States

As part of the response to the COVID-19 pandemic, bi-regional meetings were held from 25 May to 23 June 2021. They were organized in five sessions to define key gaps in PHEOC implementation in MS of Africa and the Eastern Mediterranean, as well as to determine how WHO and partners can strengthen specific country capacities. Moreover, they also afforded the opportunity to assess the usefulness of the weekly webinars on PHEOC and COVID-19 management, which were intended to help countries respond more effectively[1] and adjusted according to MS feedback.

A PHEOC assessment was carried out using a standard tool to examine the progress made in implementing PHEOC in the 47 MS of the WHO African Region[2]. Most of them have a PHEOC facility at the national level, which is either permanent or temporary. The establishment of PHEOCs for coordinating responses has made considerable progress, and they played a critical role, particularly during the COVID-19 pandemic management. In addition, with the help of partners, countries were able to prepare key documents to guide PHEOC implementation and equip themselves with basic office supplies and ICT equipment. PHEOC and surge employees were given a series of training sessions on IMS and emergency management.

Despite considerable progress in improving emergency response coordination capacities through the establishment of functional PHEOCs, there are still shortcomings in meeting the minimum requirements of each PHEOC core component, as described below.

Policy, plans and procedures

❯ The majority of MS still have no approved and enacted legal framework to establish their PHEOC, and also lack a handbook/manual for PHEOC management and operations.

❯ The absence of a legal framework led to a lack of designated funding from the national budget to run PHEOC-related activities, with no clearly defined mandate, roles and responsibilities to properly operate.

Human resources, training, and exercise

❯ Many PHEOCs do not have the minimum required staff for a PHEOC (PHEOC manager, operations lead, planning, logistics, finance and administration, as well as Communications officers, including ICT personnel).

❯ There are still MS with PHEOCs whose regular staff have not received adequate training.

❯ Inadequate surge personnel in times of extended response operations.

❯ The majority of the PHEOCs have no training or exercise programmes in place.

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[1] Strengthening COVID-19 pandemic response coordination through public health emergency operations centres (PHEOC) in Africa: Review of a multi-faceted knowledge management and sharing approach, 2020–2021 Retrievable from https://journals.plos.org/globalpublichealth/article?id=10.1371/journal.pgph.0001386

[2] Public health emergency operations centres in Africa: a cross-sectional study assessing the implementation status of core components and areas for improvement, December 2021. Retrievable from https://bmjopen.bmj.com/content/13/6/e068934

Information management and data standards

❯ The presence of advanced/good capacity related to data management and information at the national level is established due to the ad-hoc team, which is composed of senior experts from government and partners (not PHEOC staff). Meanwhile, routine PHEOC staff have no such capacities.

❯ There is limited capacity in managing information systems and response-related data at subnational and lower levels.

Communication technology and physical infrastructure

❯ Ten Member States still do not have a PHEOC facility at the national level.

❯ Fifteen PHEOCs have limited space, not allowing all response personnel to have working stations.

❯ A considerable number of PHEOCs have limited basic office supplies (computers, printers, copiers) and internet access.

❯ The internet access/connectivity in the PHEOCs is inadequate for all working stations in many MS.

2.3. Existing PHEOC capacities of the Eastern Mediterranean Member States

An online survey adapted from the PHEOC framework (Annex-9) was completed in 2021 by official PHEOC focal points in 15 countries (survey respondents). The survey addressed the minimum PHEOC requirements. Besides, a review of countries' PHEOC status presentations and compilation of information throughout the communications with Member States was also done to detect the challenges of implementing PHEOCs in MS.

The results of the assessment reflected that 12 countries reported the presence of a PHEOC facility and 10 of them used their PHEOC in their response operations. The following points summarize the main assessment results for PHEOC core components.

Plans and procedures

❯ Ten MS reported that PHEOCs are included in their health sector organogram. Nine countries have approved and enacted legal instruments for their PHEOCs. Out of these, eight countries reported defining the governance structure, core functions, and scope of PHEOC authority and operations approved by their government in their legal instruments.

❯ Mapping of existing national laws and regulations to avoid conflicts with other relevant authorities was not conducted in some countries which established PHEOCs. Meanwhile, nine countries agreed that there is a relationship between the ministry of health, the PHEOC, and the national disaster management organization and/or other ministries, agencies, and sectors before, during, and after public health emergencies.

❯ Eleven countries reported having a clear operational structure comprising management, operations, planning, logistics, finance, and administration, or a similar organizational chart in place.

❯ A policy group to provide strategic and policy guidance was established in 10 countries and a steering committee for planning and development of PHEOC existed in eight countries.

❯ An all-hazards national public health emergency response plan including the concept of operations, and addressing priority risks, has been developed and approved in seven countries. A plan for defining rules of engagement of various stakeholders from outside the Ministry of Health (MoH) is reported in nine countries. Business continuity plans were developed in five countries only.

❯ PHEOC manuals or handbooks for management and operations were developed in eight countries with integrated procedures and protocols that align with existing MoH or other government agency procedures.

Human resources, training, and exercise

❯ Political support and understanding were reported in the 12 countries that responded to the survey. However, only six of the national PHEOCs have sufficient human and financial resources to run their response operations. The minimum requirements for routine staff are met in only eight countries.

❯ Eleven of the PHEOCs can identify and contact a roster of trained personnel while only six PHEOCs have a dedicated training programme and a comprehensive, progressive exercise programme. Eight countries reported that their staff can activate a response within 120 minutes of detecting an event and they are available around the clock to fulfil key PHEOC roles.

❯ Half of 12 National PHEOCs reported that their staff did not receive formal training in PHEM. Only eight countries have an established training programme with follow-up documentation supporting training activities. Only five countries reported that training and exercise programmes are primary components of a performance monitoring and evaluation system, and their staff are routinely trained.

Information systems, and data standards

❯ Nine established PHEOCs rely on electronic solutions to support at least one aspect of PHEOC information management and in five of those national PHEOCs, solutions are government-owned.

❯ Half of the countries do not have a direct link to the national surveillance systems where essential data systematically flow to the PHEOC from relevant sectors.

❯ Access to essential contextual information such as road network, and demography (GIS data) is available in six countries. Only seven countries reported the availability of visual data dashboards to convey a concise picture of the situation or response activities.

Communication technology and physical infrastructure

❯ Twelve countries reported the presence of a PHEOC facility and ten of them used their PHEOC in their response operations. Even though not all countries have a functioning PHEOC, all have some sort of response mechanism in place.

❯ Countries that do have a PHEOC reported multiple uses of their PHEOC during the last year, mostly for infectious disease outbreaks and natural emergencies. A wide range of partner categories interact with PHEOCs at the national level, including departments within ministries of health, line ministries, UN agencies, NGOs and INGOs, and donors. There are challenges in identifying human and financial resources for running operations.

❯ Eleven PHEOCs have a dedicated facility with adequate space for management, operations, planning, logistics, and finance to support routine and response PHEOC activities.

❯ Ten countries reported having appropriate teleconferencing services; 11 countries have sufficient computer workstations; seven countries have antivirus and cyber security protocols; eight countries have audiovisual functionality; and seven countries have sufficiently tested telephonic and/or radio communications.

❯ Sufficient internet access and capacity were reported in 11 PHEOCs, but only five had interoperability of their communication equipment. A hotline for receiving emergency calls and alerts is also available in 11 countries.

❯ Not all PHEOCs have sufficient office equipment like printers, copiers, fax machines, scanners, or digital senders that are maintained and functional; only nine PHEOCs reported having sufficient office equipment. Electricity supply was also an issue with only nine reporting having sufficient electricity.

The following important recommendations were proposed to address the gaps based on the Strengths, Weakness, Opportunities and Threats (SWOT) analysis findings. They were as follows:

❯ Development of country-specific national action plans to address the capacity gaps identified in the respective MS.

❯ Conduct high-level advocacy to gain political buy-in by policies and decision makers to establish fully functional PHEOCs to improve emergency management.

❯ Development of a joint PHEOC strategic plan to guide PHEOC implementation that meets the minimum requirements in the Africa and Eastern Mediterranean Regions.

❯ Facilitate resource mapping and mobilization to assist MS in Africa and Eastern Mediterranean in establishing fully functional PHEOCs.

In addition, a SWOT analysis from the PHEOC survey complemented with findings of the bi-regional meeting was developed and summarized for the two Regions by the core components of PHEOC as depicted in Table 1 below.

Table 1. Major findings of the PHEOC Survey in Africa and Eastern Mediterranean Member States, June 2021

PHEOC component	Strengths	Gaps /Areas that need improving	Opportunities	Threats
Legal framework, policies, plans and procedures	❯ Some of the MS had developed and enacted a legal framework to authorize PHEOC establishment.	❯ Many PHEOCs still have no approved legal framework to enact PHEOC establishment.	❯ Availability of published PHEOC policy, plans and procedures (frameworks, handbook, and standard training modules) to guide PHEOC operationalization.	❯ Lack of leadership support to enact or revise existing legal frameworks to address PHEOC mandates.
	❯ The majority of PHEOCs developed a handbook/manual for PHEOC management and operations.	❯ Some PHEOCs had no approved manual/handbook for PHEOC management and operations and other relevant guidance documents.	❯ Partners' support to develop required plans and procedures.	❯ No established PHEOC organizational structure that is aligned to existing sectoral organizational structure.
	❯ Adoption of key PHEOC and related documents to further strengthen key functions and implementation.	❯ The absence of a legal framework led to a lack of designated funding to run PHEOC-related activities from the national budget and legitimacy to ensure the fulfilment of PHEOC mandates.		❯ Sustainability of the PHEOCs.
	❯ Adopting/Applying the standard response structure, the incident management system (IMS), enabled improved coordination and communication across various stakeholders at various levels.			

PHEOC component	Strengths	Gaps /Areas that need improving	Opportunities	Threats
Human resources, training, and exercise	Almost all PHEOCs have a designated PHEOC manager.	Difficult to maintain day-to-day preparedness activities of PHEOC and delayed coordination where there is no dedicated staff.	Regional-level training opportunities in IMS and emergency management.	Lack of a dedicated budget from the government for training and exercises.
	Many PHEOCs have trained routine staff serving, at least, the PHEOC core functions (PHEOC manager, Operations, Planning, Logistics, Finance and Admin and IT).	Only some of the PHEOCs had an exercise programme (one exercise per year), involving their staff and stakeholders and prepared evaluation reports (After-action reviews, AAR) that resulted in the improvement of plans.	Trained and skilled PHEOC experts at the regional level (Regional roster of experts).	High turnover of skilled PHEOC technical staff and leadership.
	Some of the PHEOCs have a policy group or steering committee composed of various multisectoral stakeholders to provide strategic and technical guidance.			
	The majority of PHEOCs could identify and contact a roster of trained personnel for deployment.			
	Training opportunities (in-class, online) at regional and national levels to improve staff capacities.			
	Webinar series platform on strengthening COVID-19 response coordination and emergency management.			
	About 60% of the PHEOCs with trained personnel were able to activate and mount a response within the standard time frame (120 minutes) following the decision to activate.			

PHEOC component	Strengths	Gaps /Areas that need improving	Opportunities	Threats
Communication technology and physical infrastructure	The majority of MS established PHEOC either in a permanent or temporary location with space to accommodate the focal points of the key IMS functions.	Many of the PHEOCs have no adequate working stations for surge personnel and conducting meetings.	Regional level robust partnership and coordination platform.	Financial dependency on partners and donors.
	27 MS have PHEOCs at the subnational level.	The majority of MS have yet to establish PHEOCs at the subnational levels and have limited capacity.	Partner and donor interest in strengthening emergency management capacity through PHEOC.	No established PHEOC structure integrated into the existing organizational structure.
		No or limited budget allocation from the government for the PHEOC.	The inclusion of PHEOC as one core capacity in JEE/IHR recommendations serves as a driving force to having functional PHEOC.	
	The majority of the PHEOCs had dedicated hotlines for receiving emergency calls and alerts.	Significant number of PHEOCs were not equipped with office supplies (desks, tables) and ICT equipment (computers, printers, copiers, etc.).	Partner support to equip PHEOCs with basic office supplies and ICT equipment.	Irregular maintenance of infrastructures.
				Lack of sustainable funding for ICT equipment.
	Some of the PHEOCs were equipped with operational ICT equipment (printers, copiers, fax machines and scanners/digital senders) and internet connectivity for the workstations.	Many PHEOCs had no adequate internet connectivity for all working stations.		
	The establishment of call centres was critical in receiving rumours and signals and addressing concerns from the communities.	Lack of software to manage signals and incident/response-related information.		

PHEOC component	Strengths	Gaps /Areas that need improving	Opportunities	Threats
Information management and data standards	Many PHEOCs had direct access to the national surveillance structure for monitoring and responding to priority public health threats.	Many established PHEOCs do not have direct access to the national surveillance system for monitoring and responding to priority public health threats.	Online/free software (ePHERM) developed to support MS to manage PHEOC data.	Unstable internet connectivity.
		Inadequately trained staff to process and manage PHEOC data using the software, though there was good capacity for data management due to the ad-hoc team established with experts from government and partners, (not PHEOC routine staff).		Coordination and data sharing challenges between different sectors.
	Data at the country level was flowing systematically to the PHEOC from relevant sectors (such as surveillance and/or local health systems).	Capacities in information systems management were limited at subnational and lower levels.	Partner interest in providing technical support.	
	The majority of the PHEOCs had dashboards for visual data display to convey concise pictures of the situation or response activities.	There is no electronic software for information communication from and to the PHEOC and other departments and sectors.		

2.4. Development process of the joint multistakeholder plan

Existing evidence of PHEOC implementation in MS of Africa and Eastern Mediterranean Region was evaluated and analysed regarding the core PHEOC capacities. Major accomplishments and areas for improvement were extracted from the relevant documents collected from MS and partners, such as national action plans, PHEOC surveys detailing existing capacities in MS and findings of the bi-regional meetings . The major findings were the foundation for the formulation of this joint multistakeholder plan.

A Technical Working Group (TWG) composed of representatives from the partners supporting PHEOC activities in MS of Africa and Eastern Mediterranean Region met on a weekly basis to provide constant feedback on each section of the plan until its finalization. A virtual workshop in March 2022 and April 2022 with all MS in the two Regions and partners' representatives was also convened to review and validate the plan and consolidate inputs from the workshops. The milestones of the plan development process are depicted in Figure 1.

Held Bi-regional meeting

2021 | **May June**

June | **2021**

Agreed to develop a joint multistakeholder strategic Plan

Conducted Survey to assess PHEOC capacities

2021 | **May**

October | **2021**

Consultant recruited to support the joint SP development

Formed PHEOC TWG from partners Conducted Situational analysis

2021 | **November**

Dec 21 May 22 | **2021 2022**

Joint PHEOC SP (2023-2027) developed

Conducted SP review workshop with MS in African Region

2022 | **March**

April | **2022**

Conducted SP review workshop with MS in Eastern M. Region

Internal partners planning meeting

2022 | **May**

June | **2023**

High-level Launch and Advocacy with all MS and partners

Resource mapping workshop for the SP PHEOC

2023 | **June**

Figure 1. Milestones of the developmental process of the joint multistakeholder PHEOC Strategic Plan (2023–2027)

3 Strategic goal and objectives

3.1. Strategic goal

The strategic plan aims to improve the public health emergency management capability by putting in place fully functional[5] Public Health Emergency Operations Centres (PHEOCs) in at least 90% of MS in Africa and Eastern Mediterranean Region by the end of 2027.

3.2. Strategic objectives to be reached by 2027

Objective 1: At least 90% of MS in Africa and Eastern Mediterranean Region will have developed and implemented the core PHEOC policy, plans and procedures: legal framework, operational and functional plans, and procedures.

Objective 2: Develop and/or strengthen the capabilities of the PHEOC workforce (routine and surge staff) to support preparedness and response coordination in at least 90% of MS in Africa and Eastern Mediterranean Region.

Objective 3: At least 90% of PHEOCs in MS of Africa and Eastern Mediterranean Region will have the information management and sharing platform(s) suitable for handling the minimum data required.

> **Putting in place fully functional Public Health Emergency Operations Centres (PHEOCs) in at least 90% of MS in Africa and Eastern Mediterranean Region by the end of 2027.**

Objective 4: Ensure that at least 90% of MS in Africa and Eastern Mediterranean Region have a PHEOC facility in place equipped with information and communication technology and physical infrastructure that meet the minimum requirements.

Objective 5: Designate eight PHEOC "Centres of Excellence'' in selected Member States in the WHO African and Eastern Mediterranean Regions.

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5 The criteria or critical requirements described in the PHEOC Framework used in determining a PHEOC as fully functional will be further reviewed and communicated with all MS.

4 PHEOC strategic pillars

4.1. Develop, approve, and implement core PHEOC policies, plans and procedures

Description: Having the core documents in the PHEOC, such as the legal framework, handbook or guideline for operation and management, multihazard preparedness and response plan, hazard-specific plans, and relevant standard operating procedures (SOPs) help the operationalization of national PHEOCs and ensure effective coordination of preparedness and responses activities.

To achieve this, the core PHEOC policy, plans and procedures will be prepared, finalized, validated and implemented with an established monitoring and evaluation mechanism in at least 90% of MS in Africa and Eastern Mediterranean Region. The following key tasks will be undertaken to meet this objective.

Tasks:

- Complete a comprehensive mapping6 of existing legal mandates on public health emergency management systems and PHEOC.

- Adapt and/or amend legal frameworks for operationalization of the PHEOC, in line with existing national disaster/emergency management act/policy.

- Enact legal frameworks for the operationalization of the PHEOC.

- Implement the PHEOC handbook/plan for PHEOC operations and management involving relevant stakeholders.

> **90% of MS in Africa and Eastern Mediterranean will have implemented the core PHEOC policy, plans and procedures.**

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[6] Refers to multisectoral engagement and exhaustive mapping of existing authorities and mandates of the emergency management systems and PHEOC.

- Implement the PHEOC handbook/plan for PHEOC operations and management.
- Develop/adapt PHEOC emergency management training and exercise programme/plan to strengthen capacities and regularly test systems and skills.
- Conduct strategic risk assessment, hazard/risk prioritization and resource mapping.
- Prepare/update a multihazard emergency preparedness, response and recovery plan involving relevant stakeholders.
- Develop generic SOPs for the management of Rapid Response Teams (RRTs) and surge personnel in the national PHEOC to be adapted by national PHEOCs.
- Support countries in adapting SOPs for management of RRTs and surge personnel in their PHEOC.
- Develop generic SOPs/guides for financial management within the PHEOC to be adapted by countries.
- Conduct country-level workshops to review and validate7 the key national PHEOC plans and procedures (handbook/plans and procedures).
- Revise the national IMS/response coordination structure based on the experiences from the response and/or SIMEX.
- Conduct awareness workshops on the key PHEOC plans and procedures with national authority/leadership and experts from MoH, relevant sectors, agencies, and in-country partners.
- Conduct training for PHEOC staff (routine and surge) on the validated PHEOC plans and procedures so that all response personnel are aware of the emergency management mechanism.
- Map and regularly review stakeholders working on PHEM and PHEOC activities at the country level.
- Form/revitalize policy group/steering committee composed of relevant government departments and partners for overseeing operationalization of PHEOC.
- Monitoring and evaluating the progress of PHEOC implementation in terms of establishing and strengthening a PHEOC facility with communication technology infrastructure.
- Deploy PHEOC experts from the regional-level database to MS of the two Regions to assist with the development, adaptation and finalization of the key PHEOC policy, plans and procedures, as well as training.

Targets:

By the end of the implementation period:

- 90% of MS of Africa and Eastern Mediterranean Region have completed a comprehensive mapping and review of existing legal authorities and emergency management systems.
- 90% of MS of Africa and Eastern Mediterranean Region have developed or amended the legal framework for the operationalization of their PHEOC.
- 90% of PHEOCs have developed, approved, and implemented a handbook or manual for PHEOC management and operations.
- 90% of PHEOCs have developed training and exercise programmes to regularly build capacity and test systems, skills, and capabilities.
- 90% of key PHEOC plans and procedures (legal framework, handbook/plan, plans and procedures, training and exercise programmes plans) are validated.
- 90% of PHEOCs have developed and obtained approval for a multisectoral, all-hazards national response plan.
- 90% of PHEOCs have utilized the standard response structure/the IMS to coordinate emergency management.

Strategies to accomplish the tasks:

- High-level advocacy.
- Workshops and consultations.

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7 Refers to a multisectoral and multidisciplinary workshop organized to review and/or validate a certain document.

❯ Sensitization and training.

❯ Deploying PHEOC experts.

❯ Providing financial support.

4.2. Develop capabilities of the PHEOC routine and surge staff

Description: Trained and skilled PHEOC routine and surge staff in emergency management should be in the PHEOC to monitor the day-to-day preparedness activities and able to be mobilized from the roster to fill positions within the IMS and support response operations through the PHEOC.

The plan set an objective to develop and/or strengthen the capabilities of the PHEOC routine and surge staff in 90% of MS in Africa and Eastern Mediterranean Region. The following key tasks are included in the plan to make sure that this objective is met.

90% of MS in Africa and Eastern Mediterranean Region will have trained and skilled PHEOC regular and surge staff.

Tasks:

❯ Conduct high-level advocacy to ensure permanent and qualified staff are assigned for the PHEOC to perform day-to-day preparedness activities.

❯ Conduct a review of staff retention mechanisms to maintain the PHEOC staff.

❯ Prepare a strategy for staff retention with a focus on maintaining routine PHEOC staff.

❯ Conduct up-to-date country-level PHEOC routine and surge staff capacity gap analysis on PHEOC human resources capacities.

❯ Conduct up-to-date subnational PHEOC routine and surge staff capacity gap analysis on PHEOC and PHEM systems.

❯ Establish a regular training and exercise programme8 to train PHEOC and surge personnel on an annual basis based on the needs or gap analysis.

❯ Conduct regional-level ToTs on emergency management for 200 PHEOC and/or PHEM professionals from MS of Africa and Eastern Mediterranean Region.

❯ Cascade the regional emergency management training at the country level in both Regions.

❯ Provide high-level PHEOC operations and IMS orientation/sensitization to high- and mid-level leadership.

❯ Develop/design a web-based/online PHEOC/IMS training platform to enable all emergency management professionals from all MS to receive the training to enhance their knowledge.

❯ Initiate registration/enrolment of PHEOC and surge personnel in the web-based/online PHEOC/IMS training and

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8 The PHEOC needs to conduct at least one training per year to train national and subnational PHEOC and surge personnel.

follow up completion of the training.

- Develop selection criteria to identify potential academic institutions in Africa and Eastern Mediterranean Region to provide a Public Health Emergency Management Fellowship (PHEM-F).

- Adapt/develop PHEM fellowship in the two Regions in collaboration with the identified academic institutions (adapt curriculum, course materials, commence the fellowship, etc.).

- Enrol and provide the PHEM fellowship to 250 PHEOC and/or PHEM experts in collaboration with the academic institutions in the two Regions.

- Monitor and evaluate the implementation of the PHEM fellowship and revise the curriculum and approaches based on the findings.

- Conduct simulation exercise needs assessment involving relevant ministries, agencies, and sectors at the country and regional levels.

- Design and conduct regional and country-level tabletop and functional simulation exercises (SIMEX) from the respective countries' PHEOC locations, involving key personnel from the relevant ministries and agencies.

- Prepare corrective action plans following the exercises to continuously improve the capabilities and systems.

- Adapt/prepare a standard database/roster template for registering and documenting all trained and skilled PHEOC and surge personnel.

- Maintain and regularly update the country-level database of trained and skilled PHEOC and surge personnel to support preparedness and response coordination.

- Maintain and regularly update the regional-level database of trained and skilled surge personnel for potential deployment to support MS.

- Organize regional-level workshops to share experiences and best practices on PHEOC operations and response coordination among countries.

- Deploy PHEOC experts from the regional-level database to MS with the limited trained PHEOC routine and surge staff in both Regions to support capacity development.

4.2.1. Human resources

Targets:
By the end of the implementation period:

National level
- 100% of MS have assigned the minimum9 routine staff in their PHEOCs as per their defined standard[9].

- 100% of MS have trained and skilled surge staff for emergency response and a roster of surge staff is available.

Regional level
- PHEOC experts recruited and deployed to selected10 MS to support capacity building and implementation of the strategic plan.

4.2.2. Capacity development

Targets:
By the end of the implementation period:

National level
- 100% of the routine PHEOC staff trained in PHEOC operations and IMS.

- 80% of PHEOCs conducted a training needs assessment to identify capacity gaps.

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[9] The minimum staff needed in the PHEOC to run the key functions will be communicated with countries.
[10] Refers to MS with limited skilled workforce in PHEOC operations and emergency management.
[11] The number varies from country to country, and it could be determined based on findings of risk mapping.

- 80% of the PHEOCs developed a dedicated training programme based on assessment findings.
- 90% of MS have sufficient[11] trained surge capacity to support preparedness and response coordination.
- 95% of PHEOC and surge personnel completed online PHEOC training.
- 100% of the functional PHEOCs in both regions conducted a minimum of one tabletop simulation SIMEX per year involving concerned stakeholders and preparing corrective action plans.
- 90% of the PHEOCs conducted at least one functional SIMEX every two years involving concerned stakeholders and preparing corrective action plans.
- 100% of the PHEOCs maintained and regularly updated the national database of trained and skilled PHEOCs and surge personnel based on the standard template to support preparedness and response coordination.

Regional level
- 200 PHEOC experts from MS of Africa and Eastern Mediterranean Region received ToTs.
- Developed, designed, and initiated a web-based/online PHEOC learning platform.
- Adapted/developed PHEM fellowship in collaboration with the identified academic institutions in both Regions.
- 250 professionals from the prioritized MS of Africa and Eastern Mediterranean Region enrolled and completed PHEM fellowship.
- Designed and conducted at least four functional SIMEX involving concerned stakeholders from all MS of the two Regions.
- Adapted/prepared a generic database and shared it with all MS in both Regions to regularly allow tracking trained human resources.
- Maintained and regularly updated the regional database of trained and skilled surge personnel for potential deployment to support MS.

Strategies to accomplish the tasks:
- Conduct regional level ToT and cascading training at country level.
- Carry out SIMEX.
- Deploy PHEOC experts to MS.
- Develop a PHEOC fellowship programme and web-based training.
- Provide capacity building/training to national PHEOC staff, including PHEM-F.
- Provide financial support.

4.3. Reinforce information management and data standards

Description: For informed interventions and effective response, the PHEOC needs to provide the capability to receive, analyse, display, and monitor incident information (incident-related, operational, and contextual information). It is essential that the three types of information systematically flow to the PHEOC and that tools are available to manage the information. The PHEOC should also determine information requirements, develop information management platforms, and deploy digital solutions/software. Besides, putting in place the information management SOPs and a memorandum of understanding (MoU) with relevant departments, sectors and agencies is critical for the PHEOC to facilitate efficient information management and communication to effectively manage health emergencies.

To meet this goal, the PHEOC will establish an integrated information management system with the information-sharing platform(s) containing the minimum[12] data required in at least 90% of MS in Africa and Eastern Mediterranean Region. The following key tasks will be undertaken to meet this objective.

Tasks:

- Map the existing systems/platforms or information management and sharing used to collect, process, display and communicate data from and to the PHEOC.
- Conduct a data flow analysis and define the business processes of the PHEOC.
- Convene a workshop to map data sources and requirements for the PHEOC.
- Establish a system to get the data or variables of interest from various stakeholders required in the PHEOC.
- Determine data and information requirements (essential elements of information and critical information requirements) needed to inform decision-making.
- Deploy software (integrated and interoperable) to manage PHEOC and response information.
- Establish an interoperability platform for exchanging information between the various existing information systems.
- Provide functional PHEOCs with security equipment, networks, and communication to collect, process and share information.
- Prepare and share regional-level communication and information management and initiate standard sharingof SOPs and MoU guidance.
- Prepare and implement SOPs and MoU to establish communication, coordination and information management and sharing mechanisms between the concerned stakeholders.
- Adapt/prepare standard templates for drafting situational reports and disseminating them to the MS' PHEOCs.
- Organize training for PHEOC staff and other experts on the application and management of the various software deployed in the PHEOC.

Targets:

By the end of the implementation period:

- 90% the PHEOCs have implemented digital/software solutions to manage information systems.
- 90% of the PHEOCs have established communication, coordination and information management and sharing mechanisms between the concerned stakeholders.
- 90% of the PHEOCs have developed the capacity to produce situational reports and information products.

> **90% MS of Africa and Eastern Mediterranean Region will have information management and communication system.**

[12] The minimum data required in the PHEOC will be defined with the MS.

Strategies to accomplish the tasks:

- Conduct high-level advocacy.
- Define national information requirements, sources, and flow mechanism.
- Deploy software to manage PHEOC and response data.
- Digitize PHEOC data collection, analysis, reporting and sharing system.
- Develop information management standards, SOPs, and agreements.
- Provide training on application and management of PHEOC software.

4.4. Strengthen the PHEOC communication technology and physical infrastructure

Description: The PHEOC should have adequate physical space equipped with appropriate, fit-for-purpose information and communication technology infrastructure and office furniture and supplies to provide adequate circumstances for the response personnel coordinating the emergency management to operate and to allow seamless communication between the various stakeholders.

The plan set the objective of ensuring that at least 90% of MS in Africa and Eastern Mediterranean Region have a PHEOC facility in place equipped with the required information and communication technology infrastructure, furniture, and office equipment. The following key tasks are included in the plan to make sure that this objective is met.

90% of MS in Africa and Eastern Mediterranean Region have a PHEOC facility in place equipped with information and communication technology that meets the minimum requirements.

Tasks:

- Conduct high-level advocacy on the importance of creating functional PHEOC with Heads of State, ministries, and agencies (offices of the president, prime minister, MoH, national disaster management agencies, relevant ministries and agencies, civil society, partners, and other relevant stakeholders).
- Conduct assessments on an annual basis to identify requirements to equip the PHEOCs with office supplies and communication technology equipment (Computers/laptops, printers, scanners, internet modems, smart television sets, internet subscription fee, antivirus software) .
- Prepare a resource mobilization plan to acquire resources (including logistical, financial and human) from relevant stakeholders, partners and donors based on the gap analysis.
- Procure or acquire the requisite communication technology infrastructure and other required resources and deploy them to the PHEOCs.
- Ensure constant functionning of systems in terms of continuity of operations for physical PHEOC, data backup, and technological failure including the internet.

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[13] The ICT and physical infrastructure requirements for a PHEOC described in the PHEOC framework will be further reviewed and communicated withs MS.
[14] The requirements for alternate PHEOC facilities will be discussed with MS.

Targets:

By the end of the implementation period:

Physical facility:

❯ 90% of MS have designated a PHEOC physical facility in accordance with their defined standard[13] and equipped with the necessary technology, furniture, and office equipment.

❯ 100% of MS with dedicated PHEOC facilities have identified alternate PHEOC locations[14] per standard.

Information and communication technology and infrastructure:

❯ 90% of the PHEOCs in the two Regions are equipped with workstations, uninterrupted power supply, furniture (chairs, desks, etc.), and office supplies

❯ 90% of PHEOCs are equipped with ICT equipment (computers/laptops/tablets, phones, printers, scanners, interactive multipurpose display screens, liquid crystal display (LCD) projectors, IT (Information Technology) security – such as antivirus software, etc.).

❯ 90% of the PHEOCs have internet connectivity for their workstations and meeting rooms.

❯ 90% of the established PHEOCs can conduct web, video, and teleconferences.

Strategies to accomplish the tasks:

❯ Conduct high-level advocacy.

❯ Establish strong stakeholder partnership and coordination.

❯ Assess needs/requirements.

❯ Mobilize and acquire resources.

❯ Provide technical assistance.

❯ Provide clear communication of expectations and the time frame.

❯ Clarify roles and responsibilities.

4.5. Establish PHEOC "Centres of Excellence"

Description: Establish PHEOC "Centres of Excellence" that will serve as regional reference centres for MS and other stakeholders in strengthening and setting up fully functional PHEOCs, facilitating experience sharing especially in PHEOC operations and emergency management, supporting PHEOC routine and surge staff capacity development through set initiatives including fellowships, mentorship, and study tours, etc.

The plan aims to designate eight PHEOC "Centres of Excellence'' in selected MS, five in the WHO African Region and three in the Eastern Mediterranean Region, with the following key tasks included in the plan to achieve the objective.

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15 The guidance document will address the standards or requirements including definitions, functions, requirements, roles, and responsibilities.

Tasks:

- Conduct high-level advocacy with officials and experts in MoH, relevant agencies of the selected MS, and other key stakeholders and partners.

- Develop a standardized tool to select eligible sites for establishing a PHEOC Centre of Excellence.

- Develop a guidance document for the PHEOC Centre of Excellence15, including standards and requirements.

- Review the tool with potential experts from selected MS and relevant stakeholders.

- Conduct self-assessments using the PHEOC eligibility tool by willing MS.

- Validate eligible sites for serving as PHEOC Centres of Excellence.

- Prepare a resource mobilization plan to acquire the resources from MS, partners, and donors.

- Recruit and deploy senior PHEOC experts (both from the selected MS and at regional level) to support the establishment and strengthening of the centres.

- Organize meetings to review implementation progress with all relevant stakeholders at least twice a year.

- Monitor and evaluate the implementation progress of the centres.

> **The guidance document will address the standards or requirements including definitions, functions, requirements, roles, and responsibilities.**

Targets:

By the end of the implementation period:

- A guidance document is developed for the establishment of PHEOC Centres of Excellence.

- All requirements/resources are mobilized, and resources needed deployed to the centres.

- At least eight PHEOC "Centres of Excellence" established in selected MS, five and three in the African and Eastern Mediterranean Regions, respectively.

Strategies to accomplish the tasks:

- Regional and national-level advocacy.

- Select eligible entities.

- Establish robust partnership and coordination with the selected MS.

- Mobilize and deploy resources.

- Provide direct technical support.

Annex. 1 contains a thorough operational plan for the next five years (2023–2027) with a set time frame. It also shows the responsible body for leading the implementation of the specific activities even though each MS is primarily responsible for overseeing and implementing all the activities outlined in the plan at country level. Further, the level of implementation provides the information where the planning and coordination of the key tasks will be managed(at country and regional level).

5 Budget and timeframe

Implementation of the activities planned over the next five years requires approximately US$ 181, 637 ,498

Implementation of the activities planned over the next five years requires US$ 181, 637, 498 (**Table 2**). MS in the two Regions request a budget with a detailed proposal, as well as regular disbursement. Aside from the resources mobilized from partners and donors, MS also seek regular funding for PHEOC operations, which is included in the Ministry of Health's annual budget to ensure ownership and sustainability.

The estimated budget breakdown by thematic area is presented below.

Policy, plans and procedures
The main tasks are the development of key PHEOC legal authorities, functional and operational plans, and procedures (legal framework, handbook, training and exercise programmes, multisectoral all-hazards response plans and so on), as well as holding workshops at the national level with relevant stakeholders to validate these key documents. Workshops to inform the relevant stakeholders on the various PHEOC policies, plans and procedures and deployment of PHEOC experts to assist MS in both Regions prepare and finalize the PHEOC policy, plans and procedures and related activities are equally planned. To enable the successful implementation of these activities an estimated US$ 20, 891, 500 is needed.

Human resources, training, and exercise
Based on the gap analysis, designated professionals from MS of Africa and Eastern Mediterranean Region will receive regional-level ToTs on PHEOC operations and IMS. Professionals will be enrolled in the PHEM-Fellowship, implemented in collaboration with identified academic institutions. Furthermore, regional and national simulation exercises will be conducted to test different capabilities, requiring a total of US$ 59, 064, 350.

Information management and data standards
Deployment of digital/software for managing information systems in the PHEOC, training of key PHEOC personnel in the software application and preparation of a protocol to guide information sharing platforms will cost US$ 9, 546, 500.

Communication technology and physical infrastructure
Procurement and installation of communication technology and physical infrastructure, including office supplies, telecommunications equipment and services, networking and technology infrastructure and the setup of a toll-free line/call centre in MS requiring this, necessitating US$ 30, 775, 050.

Establishment of PHEOC "Centres of Excellence"
Establishment of eight state of the art "Centres of Excellence" in the two Regions requires US$ 27, 007, 750, for recruitment, office renovations, communication, information technology equipment procurement and advocacy.

Monitoring and evaluation
Conducting the mid-term and end-of-term evaluations requires US$ 10, 660, 500.
The detailed budget estimation for the key activities across each objective is found in Annex 2.

Table 2. Summary of budget (US dollars) by year, African and Eastern Mediterranean Regions, 2023–2027

Objectives /Thematic areas (to be reached by end of 2027)	Total budget	Yearly budget				
		2023	2024	2025	2026	2027
At least 90% of MS will have developed and implemented the core PHEOC policy, plans and procedures: legal framework, operational and functional plans, and SOPs.	20,891,500	3,503,000	5,921,000	6,704,250	4,504,250	259,000
The capabilities of the PHEOC workforce (routine and surge staff) to support preparedness and response coordination will be developed and/or strengthened in at least 90% of MS.	59,064,350	5,415,375	11,941,675	16,443,167	17,997,467	7,266,667
At least 90% of PHEOCs in MS will have the information management and sharing platform(s) suitable for the minimum data required.	9,546,500	1,972,750	2,018,750	2,777,500	2,777,500	-
At least 90% of MS have a PHEOC facility in place equipped with information and communication technology and a physical infrastructure meeting the minimum requirements.	30,775,050	1,006,100	9,639,433	10,066,433	10,063,083	-
Eight PHEOC "Centres of Excellence'' in selected Member States in the WHO African and Eastern Mediterranean Regions will be designated.	27 007 750	5,415,375	11,941,675	16,443,167	17,997,467	7,266,667
The implementation of the key activities in the strategic plan will be evaluated: mid-term and end-term evaluations conducted.	10 666 500	821,100	821,100	4,098,600	821,100	4,098,600
TOTAL	**157,945,650**	**12,831,075**	**39,031,625**	**49,056,450**	**44,832,400**	**12,194,100**
Contingency (15%)	**23,691,848**	**1,924,661.25**	**5,854,743.75**	**7,358,467.50**	**6,724,860.00**	**1,829,115.00**
GRAND TOTAL	**181,637,498**	**14,755,736**	**44,886,369**	**56,414,918**	**51,557,260**	**14,023,215**

6 Plan implementation

6.1. Implementation timeline

The timeline for implementing each activity will be as indicated in the operational plan.

6.2. Regional-level coordination

Strong regional collaboration and coordination are essential for the strategic plan's implementation. All partners supporting PHEOC operations and PHEOC experts from selected MS will form a TWG to oversee the plan's implementation and provide high-level technical guidance. The TWG with its Terms of Reference (ToRs) will communicate progress updates to senior leadership in WHO regional offices, Africa CDC and other key stakeholders.

6.3. Country-level coordination

For the successful implementation of the strategic plan, close coordination, collaboration and communication between the regional partners and respective MoH/National Public Health Institutes (NPHI) in MS are critical. Activities outlined in the plan rely on collaboration at all levels between government and technical partners.

6.4. Technical coordinators

Senior technical coordinators who support the strategic plan implementation at the regional level will be designated. There will also be specific ToR to define their roles and responsibilities.

> **Close collaboration, coordination, and communication is critical for effective implementation of the plan.**

7 Monitoring and evaluation

The performance measurements will serve as the foundation for monitoring and evaluating the strategic plan's implementation. MS, in collaboration with key partners who support PHEOC activities, will monitor implementation progress. There will be quarterly and annual review meetings at the country level to determine performance against the annual plan, involving relevant stakeholders. Performance reports will also be prepared twice a year and distributed to all stakeholders both at the national and regional levels.

There will be internal and external mid-term and end-term evaluations to determine the progress and achievement of the targets throughout the specified objectives at national and regional levels. A multisectoral and multidisciplinary team will conduct the mid-term and end-term reviews using a standardised tool. Proceedings of the mid-term and end-term reviews will be developed and shared with all relevant stakeholders.

The mid-term and long-term goals to be achieved by these time frames will be defined, similarly the yearly target of MS with fully functional PHEOCs meeting the minimum requirements (Fig. 2). By the end of the plan's time frame, approximately 42 (90%) and 20 (90%) MS in Africa and Eastern Mediterranean Region respectively are expected to have fully functional PHEOCs. By mid-term implementation of the plan, 34 MS in the African Region and 12 in the Eastern Mediterranean Region will have fully functional PHEOCs (**Fig. 2**).

62

2027
42 Africa
20 Eastern M.

46

2025
34 Africa
12 Eastern M.

52

2026
37 Africa
15 Eastern M.

30

2023
22 Africa
8 Eastern M.

35

2024
25 Africa
10 Eastern M.
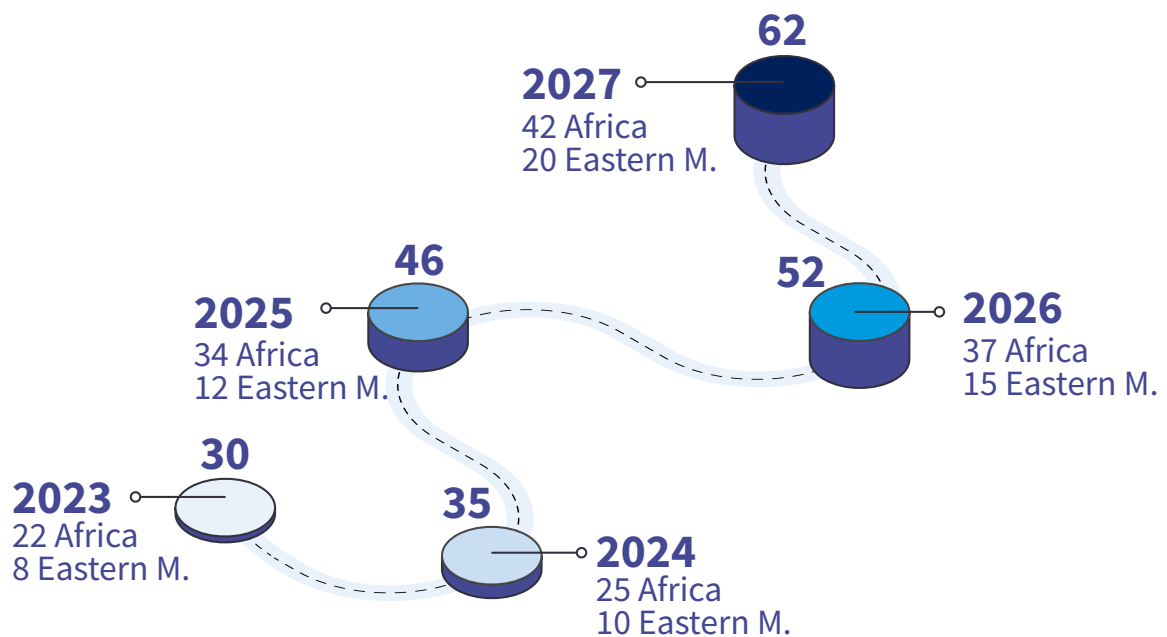
Table 3. Summary of the mid-term and end-term targets in MS of the African and Eastern Mediterranean Regions, 2023–2027

Objectives of the PHEOC Strategic Plan (2023-2027)	End-term target (2027) Both	Mid-term target (2025) Both	End-term target by region		Mid-term target by region	
			Africa	Eastern Med.	Africa	Eastern Med.
At least 90% of MS will have developed and implemented the core PHEOC policy, plans and procedures: legal framework, operational and functional plans, and SOPs.	90%	64%	90%	90%	65%	63%
The capabilities of the PHEOC workforce (routine and surge staff) to support preparedness and response coordination will be developed and/or strengthened in at least 90% of MS.	90%	71%	90%	90%	72%	69%
At least 90% of PHEOCs in MS will have the information management and sharing platform(s) suitable for the minimum data required.	90%	70%	90%	90%	70%	70%
At least 90% of MS have a PHEOC facility in place equipped with information and communication technology and a physical infrastructure meeting the minimum requirements.	90%	66%	90%	90%	67%	65%
Eight PHEOC "Centres of Excellence'' in selected Member States in the WHO African and Eastern Mediterranean Regions will be designated by the end of 2027.	8	2	5	3	1	1
The implementation of the key activities in the strategic plan will be evaluated: mid-term and end-term evaluations conducted.	4	2	2	2	1	1

Annex 3 contains the detailed performance measurements (indicator or measures, indicator computations, data sources and frequency of data collection) for the key activities planned for the next five years.

8 Annexes

8.1. Operational plan for the African and Eastern Mediterranean Regions 2023-2027

Objectives	Activities	Implementation year					Responsible body[16]
		2023	2024	2025	2026	2027	
LEVEL OF IMPLEMENTATION[17] – COUNTRY LEVEL							
Ensure that at least 90% of MS have a PHEOC facility in place, equipped with information and communication technology and physical infrastructure meeting the minimum requirements.	Conduct high-level advocacy on the importance of creating functional PHEOCs with Heads of State, ministries, and agencies (offices of the president, prime minister, MoH, national disaster management agencies, relevant ministries and agencies, civil society, partners, and other relevant stakeholders)	X	X	X	X	X	MS and Partners
	Conduct assessments on an annual basis of PHEOC equipment needs regarding office supplies and communication technology equipment	X	X	X	X		MS and Partners
	Prepare a resource mobilization plan to acquire resources (including logistical, financial, and human) from relevant stakeholders, partners and donors based on the gap analysis	X	X	X	X		MS and Partners
	Procure or acquire the requisite communication technology infrastructure and other required resources and deploy them to the PHEOCs	X	X	X	X		MS and Partners
	Identify locations and equip them based on the defined standard, also to serve as alternate PHEOCs during expanded coordination of emergencies and regularly test facilities and ensure readiness	X	X	X	X		MS

[16] Refers to the primary lead(s) responsible for the implementation of each task: coordination, planning, and execution.
[17] Refers to the level of implementation, whether the planning, coordination and execution of the key tasks are managed at the country or regional level.

Objectives	Activities	Implementation year					Responsible body[16]
		2023	2024	2025	2026	2027	
By 2027, at least 90% of MS in Africa and Eastern Mediterranean Region will have developed and implemented the core PHEOC policy, plans and procedures: legal framework, operational and functional plans, and procedures.	Complete a comprehensive mapping of existing legal mandates on public health emergency management systems and PHEOC	X	X	X			MS and Partners
	Adapt and/or amend a legal framework for operationalization of the PHEOC, in line with existing national disaster/emergency management act/policy	X	X	X			MS
	Advocate for the enactment of the PHEOC legal framework in the presence of the leadership of MoH and relevant agencies	X	X	X			MS and Partners
	Enact a legal framework for the operationalization of the PHEOC	X	X	X	X	X	MS
	Conduct sensitization workshops on the PHEOC legal framework for leadership, experts of key sectors and partners	X	X	X			MS and Partners
	Adapt a handbook/plan for PHEOC operations and management	X	X	X			MS and Partners
	Implement the handbook/plan for PHEOC operations and management	X	X	X	X	X	MS
	Adapt/prepare PHEOC emergency management training and exercises programme/plan to strengthen capacities	X	X	X			MS and Partners
	Conduct strategic risk assessment, hazard/risk prioritization and resource mapping	X	X	X	X	X	MS
	Prepare/update a multihazard emergency preparedness, response and recovery plan involving relevant stakeholders	X	X	X	X	X	MS and Partners
	Adapt/prepare country-level SOPs for the management of RRTs and surge personnel in the national PHEOC		X	X			MS
	Prepare SOPs/guides for financial management within the PHEOC		X	X			MS
	Conduct workshops to validate the key PHEOC policy, plans and procedures (handbook/plan and procedures)	X	X	X	X		MS and Partners
	Revise or update the national IMS/response coordination structure based on the experiences from the response and/or SIMEX	X	X	X	X	X	MS
	Implement the standard IMS to coordinate emergency response efforts of various stakeholders through the PHEOC	X	X	X	X	X	MS
	Conduct awareness workshops on the key PHEOC plans and procedures with national authorities/leadership and experts from MoH, relevant sectors, agencies, and in-country partners	X	X	X	X		MS and Partners
	Conduct training to the PHEOC staff (routine and surge) on the validated PHEOC plans and procedures	X	X	X	X		MS and Partners
	Review of mapping and regularly update analyses of stakeholder working on PHEM and PHEOC activities at the country level	X	X	X	X	X	MS
	Form/revitalize policy group/steering committee composed of relevant government ministries and relevant agencies and partners for overseeing PHEOC implementation and regularly update membership once a year	X	X	X	X	X	MS
	Monitoring and evaluating the progress of PHEOC implementation in terms of establishing and strengthening a PHEOC facility with communication technology infrastructure	X	X	X	X	X	MS and Partners

Objectives	Activities	Implementation year					Responsible body[16]
		2023	2024	2025	2026	2027	
By 2027, at least 90% of PHEOCs in MS of Africa and Eastern Mediterranean Region will have the information management and sharing platform(s) containing the minimum data required.	Map the existing systems or information management and sharing used to collect, process, display and communicate data from and to the PHEOC	X	X	X			MS and Partners
	Conduct a data flow analysis and define the business processes of the PHEOC	X	X	X			MS and Partners
	Convene a workshop to map data sources and requirements for the PHEOC	X	X	X	X		MS
	Establish a system to get the data or variables of interest from various stakeholders required in the PHEOC	X	X	X			MS and Partners
	Determine data and information requirements (essential elements of information and critical information requirements) needed to inform decision-making	X	X	X			MS
	Establish an interoperability platform for exchanging information between the various existing information systems	X	X	X	X		MS and Partners
	Prepare/adapt and implement SOPs and MoU to establish communication, coordination and information management and sharing mechanisms between the concerned stakeholders	X	X	X	X		MS and Partners
	Provide training on the application and management of the software to PHEOC staff and relevant experts	X	X	X	X		MS and Partners

Objectives	Activities	Implementation year					Responsible body[16]
		2023	2024	2025	2026	2027	
Develop and/or strengthen the capabilities of the PHEOC workforce (routine and surge staff) to support preparedness and response coordination in at least 90% of MS in Africa and Eastern Mediterranean Region by 2027.	Conduct high-level advocacy to ensure permanent and qualified staff are assigned for the PHEOC to perform day-to-day preparedness activities	X	X	X	X		MS and Partners
	Ensure the minimal permanent and qualified staff are assigned for the PHEOC to conduct day-to-day preparedness activities and are permanently absorbed into the national structure for sustainability	X	X	X	X		MS and Partners
	Conduct a review of staff retention strategies/mechanisms to maintain the PHEOC routine staff	X	X	X			MS and Partners
	Prepare a strategy for staff retention with a focus on maintaining PHEOC routine staff	X	X	X			MS and Partners
	Conduct up-to-date country-level PHEOC routine and surge staff capacity gap analysis on PHEOC HR capacities	X	X	X	X		MS
	Cascade the regional emergency management training at the country level in both Regions	X	X	X	X	X	MS and Partners
	Establish a regular training and exercise programme to train PHEOC and surge personnel on an annual basis based on the need or gap analysis	X	X	X	X	X	
	Provide high-level PHEOC operations and IMS orientation/sensitization to high- and mid-level leadership	X	X	X			MS and Partners
	Conduct simulation exercise needs assessment involving relevant ministries, agencies, and sectors at the country and regional levels	X	X	X	X		MS
	Design and conduct regional and country-level tabletop simulation exercises (SIMEX) from the respective countries' PHEOC locations involving key personnel from the relevant ministries and agencies	X	X	X	X	X	MS
	Prepare corrective action plans following the exercises and revise the plan based on the findings	X	X	X	X	X	MS
	Conduct country and regional-level simulation exercise needs assessment involving MS of both regions		X		X		MS and Partners
	Design and conduct regional and country-level functional simulation exercises (SIMEX) from the respective countries' PHEOC locations involving key personnel from the relevant ministries and agencies		X		X		MS
	Maintain and regularly update the country-level database of trained and skilled PHEOC and surge personnel to support preparedness and response coordination	X	X	X	X	X	MS

Objectives	Activities	Implementation year					Responsible body[16]
		2023	2024	2025	2026	2027	
Monitoring and evaluation: annual review meetings, mid-term, and end-term evaluations)	Prepare an annual workplan for the PHEOC based on the activities in the five-year strategic plan involving all the relevant stakeholders, including partners	X	X	X	X	X	MS
	Conduct a national Annual Review Meeting (ARM) to track the implementation of key activities of the PHEOC annual plan	X	X	X	X	X	MS
	Organize and conduct a mid-term evaluation to track the implementation progress of the PHEOC five-year strategic plan with all the relevant stakeholders at the national level			X			MS and Partners
	Revise the activity plan for the next two and a half years in the PHEOC strategic plan based on the findings from the mid-term evaluation (e.g., include the activities not implemented from the first mid-term into the next implementation period)			X			MS and Partners
	Organize and conduct an end-term evaluation to track the implementation progress of the PHEOC five-year strategic plan with all the relevant stakeholders at the national level					X	MS and Partners
LEVEL OF IMPLEMENTATION – REGIONAL LEVEL							
PHEOC Strategic Plan (2023-2027): Launch and dissemination	Prepare relevant documents (brief report, PowerPoint presentations, etc.) for a workshop with representatives of MS and partners to validate the strategic plan	X					Partners*
	Organize and conduct a workshop with representatives of MS of Africa and Eastern Mediterranean Region and key partners to review and validate the strategic plan	X					Partners
	Produce and publish a press release on the strategic plan to inform all implementing stakeholders (MS, partners, and other stakeholders)	X					Partners
	Organize round table consultative meetings with the key partners and donors for resource mapping to support the implementation of the strategic plan	X					Partners
	Publish and disseminate the latest version of the PHEOC strategic plan (2023-2027) to all MS of the two Regions, partners, and other stakeholders	X					Partners

Objectives	Activities	Implementation year					Responsible body[16]
		2023	2024	2025	2026	2027	
Strengthen the communication technology and physical infrastructure	Conduct high-level advocacy on the importance of creating functional PHEOCs with Heads of State, ministries, and agencies (offices of the president, prime minister, MoH, national disaster management agencies, relevant ministries and agencies, civil society, partners, and other relevant stakeholders)	X	X	X	X		Partners
	Conduct assessments on an annual basis to identify requirements to equip the PHEOCs with office supplies and communication technology equipment (computers/laptops, printers, scanners, internet modems, smart television sets, internet subscription fee, antivirus software) at least 15 persons per PHEOC facility	X	X	X	X		Partners
	Prepare a resource mobilization plan to acquire resources (including logistical, financial, and human) from relevant stakeholders, partners and donors based on the gap analysis	X	X	X	X		Partners
	Procure or acquire the requisite communication technology infrastructure and other required resources and deploy them to the PHEOCs	X	X	X	X		Partners
	Ensure redundancy of systems in terms of continuity of operations for physical PHEOC, data backup, and technological failure including internet	X	X	X	X	X	Partners
Develop and implement the core PHEOC policy, plans and procedures: legal framework, operational and functional plans, and procedures	Develop regional-level SOPs to guide the development of country-level SOPs for the management of RRTs and surge personnel in the PHEOC	X	X				Partners
	Organize regional-level workshops to share experiences and best practices on PHEOC operations and response coordination between countries		X	X	X		Partners
	Deploy PHEOC experts from the regional-level database to MS of the two Regions to assist with the review and operationalization of the key PHEOC policy, plans and procedures	X	X	X	X	X	Partners
	Conduct monthly webinar series on PHEOC best prac-tices and case Studies	X	X	X	X	X	Partners
	Conduct regular meetings and facilitate collaborative discussions within the Technical Working Groups (TWGs).	X	X	X	X	X	Member states and partners
	Organize Quarterly and Annual Meetings for re-viewing the regional PHEOC-Net Activity Plan	X	X	X	X	X	Member states and partners

Objectives	Activities	Implementation year					Responsible body[16]
		2023	2024	2025	2026	2027	
Establish information management and data standards for the PHEOC	Deploy software (integrated and interoperable) to manage PHEOC and response information	X	X	X			Partners
	Provide functional PHEOCs with security equipment, networks, and communication to collect, process and share information	X	X	X	X		Partners
	Prepare and share regional-level communication and information management and standard sharing SOPs and MoU guidance	X	X				Partners
	Adapt/prepare regional-level standard templates for preparing situational reports and disseminating them to the PHEOCs	X	X	X			Partners
	Adapt SOPs/user manual for the application of the software and organize training for PHEOC staff and other experts on the application and management of the various software deployed in the PHEOC	X	X				Partners
	Finalize the regional PHEOC-Net website – a communication and information-sharing platform	X					Partners
	Launch the regional EOC-Net website	X					Partners
	Conduct Hands-On Training for Regional PHEOC-Net Members	X	X	X	X	X	Partners

Objectives	Activities	Implementation year					Responsible body[16]
		2023	2024	2025	2026	2027	
Develop capabilities of the PHEOC routine and surge staff	Conduct up-to-date regional-level PHEOC routine and surge staff capacity gap analysis on PHEOC HR capacities	X	X	X	X		Partners
	Conduct regional-level ToTs on emergency management for PHEOC and/or PHEM professionals from MS of Africa and Eastern Mediterranean Region	X	X	X	X	X	Partners
	Develop/design, a web-based/online PHEOC/IMS training platform to enable all emergency management professionals from all MS to receive training to enhance their knowledge	X	X				Partners
	Initiate registering/enrolment of PHEOC and surge personnel for the web-based/online PHEOC/IMS training and follow-up completion of the training		X	X	X	X	Partners
	Monitor and evaluate the implementation and achievement of the web-based PHEOC training platforms		X	X	X	X	Partners
	Develop selection criteria to identify potential academic institutions in Africa and Eastern Mediterranean Region to provide a Public Health Emergency Management Fellowship (PHEM-F)	X	X				Partners
	Adapt/develop PHEM-F in the two Regions in collaboration with the identified academic institutions (adapt curriculum, course materials, commence the fellowship, etc.)	X	X				Partners and Academic institutions
	Enrol and provide the PHEM-F to PHEOC and/or PHEM experts in collaboration with the academic institutions in the two Regions			X	X	X	Partners and Academic institutions
	Monitor and evaluate the implementation of the PHEM-F and revise the curriculum and approaches based on the findings			X	X	X	Partners and Academic institutions
	Conduct regional-level simulation exercise needs assessment involving MS of both Regions		X		X		MS and Partners
	Design and conduct regional-level functional simulation exercises (SIMEX) from the respective countries' PHEOC locations involving key personnel from the relevant ministries and agencies		X		X		Partners
	Prepare corrective action plans following the exercises and revise the plans based on the findings		X		X		Partners
	Adapt/prepare a standard database/roster template for registering all trained and skilled PHEOC and surge personnel	X	X				Partners

Objectives	Activities	Implementation year					Responsible body[16]
		2023	2024	2025	2026	2027	
Designate eight PHEOC "Centres of Excellence"	Conduct high-level advocacy with officials and experts in MoH, relevant agencies of the selected MS, other key stakeholders, and partners		X	X			Partners and selected MS
	Develop a guidance document for the PHEOC Centre of Excellence, including standards and requirements	X	X				Partners
	Develop an eligibility standardized tool for establishing a PHEOC centre of excellence		X				Partners
	Review the tool with potential experts from selected MS and relevant stakeholders		X				Partners
	Conduct the selection process and identify potential entities in different countries based on the assessment tool (at least to identify two sites in the initial process/phase and similarly identify other sites in a later year)		X	X			Partners
	Finalize the self-assessment and share reports with relevant stakeholders		X	X	X		MS
	Finalize the selection process and disseminate the assessment report to the selected countries and other relevant stakeholders		X	X	X		Partners
	Validate the readiness of the sites for serving as a PHEOC centres of excellence		X	X			Partners
	Prepare a resource mobilization plan to acquire the resources from MS, partners, and donors		X	X	X	X	Partners and selected MS
	Mobilize/acquire and deploy the resources to the centres based on the gap analysis		X	X	X		Partners and selected MS
	Upgrade existing facilities or construct new facilities to ensure the establishment of the centres that meet expected standards and requirements		X	X	X		Partners
	Ensure the establishment of the centres by equipping them with the required resources and other requirements based on the set standards			X	X	X	Partners and selected MS
	Recruit and deploy senior PHEOC experts (both from the selected MS and regional level) to support the establishment and strengthening of the centres		X	X	X	X	Partners
	Organize meetings to review implementation progress with all relevant stakeholders at least twice a year			X	X	X	Partners and selected MS
	Monitor the implementation progress of the centres of excellence			X	X	X	Partners and selected MS
	Evaluate the functioning of the centres of excellence as per the established standards			X	X	X	Partners and selected MS

Objectives	Activities	Implementation year					Responsible body[16]
		2023	2024	2025	2026	2027	
Monitoring and evaluation: annual review meetings, mid-term, and end-term evaluations)	Organize and conduct a mid-term evaluation to track the implementation progress of the PHEOC five-year strategic plan with all the relevant stakeholders at the regional level			X			Partners
	Revise the activity plan for the next two and a half years in the PHEOC strategic plan based on the findings from the mid-term evaluation (e.g., include the activities not implemented from the first mid-term into the next implementation period)			X			Partners
	Organize and conduct an end-term evaluation to track the implementation progress of the PHEOC five-year strategic plan with all the relevant stakeholders at the regional level					X	Partners
Project coordination of the PHEOC strategic plan	Recruit at least two full-time project coordinators at the regional level for overseeing and supporting the implementation of the strategic plan		X	X	X	X	WHO
	Compile and prepare quarterly and annual progress reports based on the reports from MS and disseminate them to all stakeholders	X	X	X	X	X	Project coordinators
	Develop a regional-level annual progress report of the implementation of the strategic plan and ensure it is signed and disseminated to MS and partners through the regional director	X	X	X	X	X	Project coordinators
	Prepare a paper on the key findings of the implementation of the strategic plan and publish at least two papers, each for the two Regions, in international journals			X		X	Partners
	Supervise and support the implementation of the strategic plan and other related activities	X	X	X	X	X	Project coordinators

Note: *Includes currently: WHO, Africa CDC, WAHO, US CDC, UKHSA, BMGF and RKI. It shall be updated periodically to accommodate new partners, if necessary.

8.2. Budget estimate for the African and Eastern Mediterranean Regions 2022–2026

Activities	Total budget (Both Regions) US$	Annual budget				
		2023	2024	2025	2026	2027
Country-level implementation						
Objective : At least 90% of MS have a PHEOC facility in place equipped with information and communication technology and physical infrastructure meeting the minimum requirements.						
Conduct high-level advocacy on the importance of establishing functional PHEOCs with Heads of State, ministries, and agencies (offices of the president, prime minister, MoH, national disaster management agencies, relevant ministries and agencies, civil soci-ety, partners, and other relevant stakeholders)	$2,380,000	$476,000	$476,000	$714,000	$333,200	-
Hold regular steering committee meetings to review the PHEOC implementation and the progress of the five-year strategic plan	$1,890,000	$378,000	$378,000	$567,000	$264,600	-
Subtotal	$4,270,000	$854,000	$854,000	$1,281,000	$597,800	$0
Objective : By 2027, at least 90% of MS in Africa and Eastern Mediterranean Region will have developed and implemented the core PHEOC policy, plans and procedures: legal framework, operational and functional plans, and procedures.						
Conduct workshop and complete a comprehensive mapping of existing legal mandates on public health emergency management systems and PHEOC	$275,000	$275,000	$412,500	$192,500	-	$275,000
Conduct workshop to adapt and/or amend a legal framework for operationalization of the PHEOC, in line with existing national disaster/emergency management act/policy	$275,000	$275,000	$412,500	$192,500	-	$275,000
Conduct sensitization workshop on the PHEOC legal framework to leadership, experts of key sectors and partners	$476,000	$476,000	$714,000	$333,200	-	$476,000
Conduct workshop to adapt a handbook/plan for the PHEOC Operations and Management	$275,000	$275,000	$412,500	$192,500	-	$275,000
Conduct workshops to adapt/prepare programmes/plans for the management of PHEOC and emergency management training and exercises	$275,000	$275,000	$412,500	$192,500	-	$275,000
Conduct workshop to adapt/prepare country-level SOPs for management of RRTs and surge personnel in the PHEOC	-	$825,000	$880,000	-	-	-
Conduct workshop to prepare SOP/guide for financial manage-ment within the PHEOC	-	$825,000	$880,000	-	-	-
Conduct workshops to validate the key PHEOC policy, plans and procedures (handbook/plan and procedures)	$385,000	$385,000	$577,500	$269,500	-	$385,000

Activities	Total budget (Both Regions) US$	Annual budget				
		2023	2024	2025	2026	2027
Conduct workshops on the key PHEOC policy, plans and procedures to raise awareness of the leadership and experts from MoH, relevant agencies, sectors, and partners	$476,000	$1,190,000	$1,285,200	-	-	$476,000
Conduct training on the validated PHEOC policy, plans and procedures for the PHEOC and surge personnel	$770,000	$770,000	$1,155,000	$539,000	-	$770,000
Subtotal	$3,207,000	$5,571,000	$7,141,700	$1,911,700	$0	$3,207,000
Objective : By 2027, at least 90% of PHEOCs in MS of Africa and Eastern Mediterranean Region will have the information management and sharing platform(s) containing the minimum data required.						
Conduct a consultative workshop to map the existing information management and sharing platforms to collect, process, display and communicate data from and to the PHEOC	$1,025,000	$205,000	$205,000	$307,500	$143,500	-
Convene a workshop to map data sources and requirements for the PHEOC	$1,025,000	$205,000	$205,000	$307,500	$143,500	-
Conduct a workshop to develop an interoperability platform for exchanging information between the various existing information systems	$1,375,000	$275,000	$275,000	$412,500	$192,500	-
Conduct a workshop to prepare/adapt and implement SOPs and MoU to establish communication, coordination and information management and sharing mechanisms between the concerned stakeholders	$1,375,000	$275,000	$275,000	$412,500	$192,500	-
Provide training on the application and management of the software to PHEOC staff and relevant experts	$3,850,000	$770,000	$770,000	$1,155,000	$539,000	-
Subtotal	$8,650,000	$1,730,000	$1,730,000	$2,595,000	$1,211,000	$0
Objective : Develop and/or strengthen the capabilities of the PHEOC workforce (routine and surge staff) to support preparedness and response coordination in at least 90% of MS in Africa and Eastern Mediterranean Region by 2027.						
Conduct high-level advocacy in the presence of top leadership from the MoH and other relevant agencies on the importance of assigning permanent and qualified staff to run the PHEOC's day-to-day preparedness activities	$3,284,400	$476,000	$952,000	$952,000	$904,400	-
Prepare a strategy for staff retention with a focus on maintaining the skilled and routine PHEOC staff	$1,897,500	$275,000	$550,000	$550,000	$522,500	-
Cascade/provide the regional IMS and emergency management training at the country level in both Regions	$16,663,500	$2,415,000	$4,830,000	$4,830,000	$4,588,500	-
Provide high-level PHEOC operations and IMS training to central-level leadership and mid-level managers	$5,313,000	$770,000	$1,540,000	$1,540,000	$1,463,000	-

Activities	Total budget (Both Regions) US$	Annual budget				
		2023	2024	2025	2026	2027
Conduct simulation exercise needs assessment involving relevant ministries, agencies, and sectors at the country level	$745,200	$108,000	$216,000	$216,000	$205,200	-
Design and conduct country-level tabletop simulation exercises (SI-MEX) involving key personnel from the concerned stakeholders	$3,284,400	$476,000	$952,000	$952,000	$904,400	-
Design and conduct country-level functional simulation exercises (SI-MEX) involving key personnel from the concerned stakeholders	$3,960,600	-	$1,980,300	-	$1,980,300	-
Subtotal	$35,148,600	$4,520,000	$11,020,300	$9,040,000	$10,568,300	$0
Objective : Evaluate the implementation of the key activities in the strategic plan: conduct mid-term and end-term evaluations						
Convene a national annual review meeting (ARM) to track the implementation of key activities of the PHEOC annual plan	4,105,500	821,100	821,100	821,100	821,100	821,100
Organize and conduct a mid-term evaluation to track the implementation progress of the PHEOC five-year strategic plan with all the relevant stakeholders at the national level	2,656,500	-	-	2,656,500	-	-
Organize and conduct an end-term evaluation to track the implementation progress of the PHEOC five-year strategic plan with all the relevant stakeholders at the national level	2,656,500	-	-	-	-	2,656,500
Subtotal	$9,418,500	$821,100	$821,100	$3,477,600	$821,100	$3,477,600
TOTAL	$76,272,100	$11,132,100	$19,996,400	$23,535,300	$15,109,900	$3,477,600
Contingency (15%)	$11,440,815	$1,669,815	$2,999,460	$3,530,295	$2,266,485	$521,640
GRAND TOTAL	$87,712,915	$12,801,915	$22,995,860	$27,065,595	$17,376,385	$3,999,240

Activities	Total budget (Both Regs.) US$	Annual budget				
		2023	2024	2025	2026	2027
Regional level implementation						
Objective : Ensure that at least 90% of MS in Africa and Eastern Mediterranean Region have a PHEOC facility equipped with information, communication technology and physical infrastructure that meet the minimum requirements by 2027.						
Conduct high-level advocacy on the importance of establishing functional PHEOCs with Heads of State, ministries, and agencies (offices of the president, prime minister, MoH, national disaster management agencies, relevant ministries and agencies, civil society, partners, and other relevant stakeholders)	$595,000	$148,750	$148,750	$148,750	$148,750	-
Conduct assessments on an annual basis to identify requirements to equip the PHEOCs with office supplies and communication technology equipment (computers/laptops, printers, scanners, internet modems, smart television sets, internet subscription fee, antivirus software) at least 15 persons per PHEOC facility	$10,050	$3,350	$3,350	$3,350	-	-
Subtotal	$605,050	$152,100	$152,100	$152,100	$148,750	$0
Objective : By 2027, at least 90% of MS in Africa and Eastern Mediterranean Region will have developed and implemented the core PHEOC policy, plans and procedures: legal framework, operational and functional plans, and procedures.						
Develop regional-level standard operating procedures (SOPs) to guide the development of country-level SOPs for the management of RRTs and surge personnel in the PHEOC	$106,250	-	$106,250	-	-	-
Organize regional-level workshops to share experiences and best practices on PHEOC operations and response coordination between countries	$446,250	-	$148,750	$148,750	$148,750	-
Subtotal	$552,500	$0	$255,000	$148,750	$148,750	$0
Objective : By 2027, at least 90% of PHEOCs in MS of Africa and Eastern Mediterranean Region will have the information management and sharing platform(s) containing the minimum data required.						
Prepare and share regional-level communication and information management and standard sharing SOPs and MoU	$106,250	$53,125	$53,125	-	-	-
Adapt SOPs/user manual for the application of the software and prepare training materials to train PHEOC staff	$106,250	$53,125	$53,125	-	-	-
Subtotal	$212,500	$106,250	$106,250	$0	$0	$0
Objective : Develop and/or strengthen the capabilities of the PHEOC workforce (routine and surge staff) to support preparedness and response coordination in at least 90% of MS in Africa and Eastern Mediterranean Region by 2027.						
Conduct regional-level ToT on IMS and emergency management for 200 PHEOC and/or PHEM professionals from MS of Africa and Eastern Mediterranean Region	$1,750,000	$350,000	$350,000	$350,000	$350,000	$350,000

Activities	Total budget (Both Regs.) US$	Annual budget				
		2023	2024	2025	2026	2027
Develop/design, a web-based/ online PHEOC/IMS training platform to enable all emergency management professionals from all MS of both Regions to receive the training to enhance their knowledge	$318,750	$159,375	$159,375	-	-	-
Develop selection criteria to identify potential academic institutions in Africa and Eastern Mediterranean Region to provide a Public Health Emergency Management Fellowship (PHEM-F)	$106,250	$53,125	$53,125	-	-	-
Adapt/develop PHEM-F in the two Regions in collaboration with the identified academic institutions (adapt curriculum, course materials, commence the fellowship, etc.)	$318,750	$159,375	$159,375	-	-	-
Enrol and provide the PHEM-F to 250 PHEOC and/or PHEM experts (two fellowship programmes a year) in collaboration with the academic institutions in the two Regions	$20,750,000	-	-	$6,916,667	$6,916,667	$6,916,667
Subtotal	$23,243,750	$721,875	$721,875	$7,266,667	$7,266,667	$7,266,667
Objective : Designate eight PHEOC "Centres of Excellence'' in selected Member States in the WHO African and Eastern Mediterranean Regions by the end of 2027.						
Develop a guidance document for the PHEOC Centre of Excellence, including standards and requirements	$212,500	$106,250	$106,250	-	-	-
Develop a site selection standardized tool for establishing a PHEOC centre of excellence	$106,250	-	$106,250	-	-	-
Finalize the selection process and disseminate the assessment report to the selected countries and other relevant stakeholders	$297,500	-	$99,167	$99,167	$99,167	-
Conduct high-level advocacy with officials and experts in MoH, relevant agencies of the selected MS, other key stakeholders, and partners	$595,000	-	$297,500	$297,500	-	-
Organize meetings to review implementation progress with all relevant stakeholders at least twice a year	$1,487,500	-	-	$495,833	$495,833	$495,833
Subtotal	$2,698,750	$106,250	$609,167	$892,500	$595,000	$495,833
Objective : Evaluate the implementation of the key activities in the strategic plan: conduct mid-term and end-term evaluations						
Organize and conduct a mid-term evaluation to track the implementation progress of the PHEOC five-year strategic plan with all the relevant stakeholders at the regional level	$297,500	-	-	$297,500	$0	$0

Activities	Total budget (Both Regs.) US$	Annual budget				
		2023	2024	2025	2026	2027
Organize and conduct an end-term evaluation to track the implementation progress of the PHEOC five-year strategic plan with all the relevant stakeholders at the regional level	$297,500	-	-	-	-	$297,500
Organize workshops to disseminate the findings of the mid-term and end-term evaluations of the PHEOC five-year strategic plan involving the relevant stakeholders	$595,000	-	-	$297,500	-	$297,500
Subtotal	$1,190,000	$0	$0	$595,000	$0	$595,000
TOTAL	$28,502,550	$1,086,475	$1,844,392	$9,055,017	$8,159,167	$8,357,500
Contingency (15%)	$4,275,383	$162,971	$276,659	$1,358,253	$1,223,875	$1,253,625
GRAND TOTAL	$32,777,933	$1,249,446	$2,121,050	$10,413,269	$9,383,042	$9,611,125

Activities	Total budget US$	Annual budget				
		2023	2024	2025	2026	2027
Ensure that at least 90% of MS in Africa and Eastern Mediterranean Region have a PHEOC facility in place equipped with information, communication technology and physical infrastructure that meets the minimum requirements by 2027.						
Recruit and deploy experts to assist MS with the selection process and setting up of the PHEOC facility	$1,050,000	-	$350,000	$350,000	$350,000	-
Subtotal	$1,050,000	$0	$350,000	$350,000	$350,000	$0
By 2027, at least 90% of MS in Africa and Eastern Mediterranean Region will have developed and implemented the core PHEOC policy, plans and procedures: legal framework, operational and functional plans, and procedures.						
Deploy PHEOC experts from the regional-level database to MS of the two Regions to assist with the review and operationalization of the key PHEOC policy, plans and procedures	1 554 000	296 000	370 000	370 000	259 000	259 000
Subtotal	1 554 000	296 000	370 000	370 000	259 000	259 000
By 2027, at least 90% of PHEOCs in MS of Africa and Eastern Mediterranean Region will have the information management and sharing platform(s) containing the minimum data required.						
Deploy experts to MS of the two Regions to assist with the software installation and training on the application of the software	546 000	136 500	136 500	136 500	136 500	-
Subtotal	546 000	136 500	136 500	136 500	136 500	0
Develop and/or strengthen the capabilities of the PHEOC workforce (routine and surge staff) to support preparedness and response coordination in at least 90% of MS in Africa and Eastern Mediterranean Region by 2027.						
Recruit expert(s) to support adapting/developing PHEM-F in collaboration with the identified academic institutions (adapt curriculum, course materials, commence the fellowship, etc.)	74 000	37 000	37 000	-	-	-
Recruit and deploy experts to MS to support capacity development activities (training, mentorship, etc.)	546 000	136 500	136 500	136 500	136 500	-
Recruit experts to support the design and conduct of regional-level functional simulation exercises (SIMEX) involving key personnel from the concerned stakeholders of all MS of the two Regions	52 000	-	26 000	-	26 000	-
Subtotal	672 000	173 500	199 500	136 500	162 500	0
Designate eight PHEOC "Centres of Excellence" in selected Member States in the WHO African and Eastern Mediterranean Regions by the end of 2027.						
Recruit an expert to support the development of a guidance document for the PHEOC Centre of Excellence, including standards and requirements	13 000	6 500	6 500	-	-	-

Activities	Total budget	Annual budget				
	US$	2023	2024	2025	2026	2027
Deploy PHEOC experts or consultants to support the establishment of PHEOC "Centres of Excellence" or state of the art PHEOCs in identified sites/MS in the two Regions	296 000	-	74 000	74 000	74 000	74 000
Subtotal	309 000	6 500	80 500	74 000	74 000	74 000
Evaluate the implementation of the key activities in the strategic plan: conduct mid-term and end-term evaluations .						
Recruit consultants to organize and conduct regional-level mid-term evaluations to track the implementation progress of the PHEOC five-year strategic plan	26 000	-	-	26 000	-	-
Recruit consultants to organize and conduct regional-level end-term evaluations to track the implementation progress of the PHEOC five-year strategic plan	26 000	-	-	-	-	26 000
Subtotal	52 000	0	0	26 000	0	26 000
TOTAL	$4,183,000	$612,500	$1,136,500	$1,093,000	$982,000	$359,000
Contingency (15%)	$627,450	$91,875	$170,475	$163,950	$147,300	$53,850
GRAND TOTAL	$627,450	$91,875	$170,475	$163,950	$147,300	$53,850

Objectives	Total budget	Annual budget				
		2023	2024	2025	2026	2027
Ensure that at least 90% of MS in Africa and Eastern Mediterranean Region have a PHEOC facility in place equipped with information, communication technology and physical infrastructure that meets the minimum requirements by 2027.						
Equip the PHEOCs with office supplies and communication technology equipment (computers/laptops, printers, scanners, internet modems, smart television sets, internet subscription fee, antivirus software) for at least 15 persons per PHEOC facility based on the assessment findings	$24,850,000	$0	$8,283,333	$8,283,333	$8,283,333	$0
Subtotal	24,850,000	-	8,283,333	8,283,333	8,283,333	-
By 2027, at least 90% of PHEOCs in MS of Africa and Eastern Mediterranean Region will have the information management and sharing platform(s) containing the minimum data required.						
Provide functional PHEOCs with security equipment and networks and communication to collect, process and share information	138 000	0	46 000	46 000	46 000	$0
Subtotal	138 000	-	46 000	46 000	46 000	-
Designate eight PHEOC "Centres of Excellence" in selected Member States in the WHO African and Eastern Mediterranean Regions by the end of 2027.						
Support upgrading/renovation of facilities to establish PHEOC "Centres of Excellence"	16 000 000	0	5 333 333	5 333 333	5 333 333	0
Procure office supplies and ICT equipment for the Centres of Excellence	8 000 000	0	2 666 667	2 666 667	2 666 667	0
Subtotal	24 000 000	0	8 000 000	8 000 000	8 000 000	0
TOTAL	48,988,000	-	16,329,333	16,329,333	16,329,333	-
Contingency (15%)	$7,348,200	$0	$2,449,400	$2,449,400	$2,449,400	$0
GRAND TOTAL	56,336,200	-	18,778,733	18,778,733	18,778,733	-

8.3. Performance measures for the African and Eastern Mediterranean Regions 2022–2026

PHEOC core component	Indicators/ Performance measures	Indicator definitions / Calculations	End target (both)	End target (Africa)	End target (Eastern Med.)	Annual target (both)					Source of data	Frequency of data collection
						2023	2024	2025	2026	2027		
PHEOC legal frameworks, plans and procedures	Proportion of PHEOCs that completed a comprehensive mapping of existing legal mandates	Total number of PHEOCs that completed a comprehensive mapping of legal mandates of PHEOCs	90%	90%	90%	50%	75%	90%			Mapping document	Quarterly
	Proportion of MS that prepared and/or amended a legal instrument for the operationalization of the PHEOC	Total number of MS that adopted and/or amended legal instruments for operationalization of the PHEOC	90%	90%	90%	45%	65%	90%			Legal instrument	Quarterly
	Proportion of PHEOCs that enacted a legal instrument for the operationalization of the PHEOC	Total number of PHEOCs that enacted a legal instrument for the operationalization of the PHEOC/ Total number of PHEOCs expected to enact the PHEOC legal instrument	90%	90%	90%	40%	55%	70%	90%		Legal instrument	Quarterly
	Proportion of PHEOCs that adapted a handbook/plan for PHEOC operations and Management	Total number of PHEOCs that adapted a handbook/plan for their operations and management	90%	90%	90%	50%	75%	90%			Handbook / guideline	Quarterly
	Proportion of PHEOCs that implemented a handbook/plan for PHEOC operations and management	Total number of PHEOCs that implemented a PHEOC operations and management handbook/ Total number of PHEOCs expected to implement a PHEOC handbook for their operations and management	90%	90%	90%	50%	60%	75%	90%		Handbook / guideline	Quarterly

PHEOC core component	Indicators/ Performance measures	Indicator definitions / Calculations	End target (both)	End target (Africa)	End target (Eastern Med.)	Annual target (both)					Source of data	Frequency of data collection
						2023	2024	2025	2026	2027		
	Proportion of PHEOCs that developed a multihazard national response plan	Number of PHEOCs that developed multihazard national response plan/ Total number of PHEOCs expected to develop a multihazard national response plan	90%	90%	90%	50%	60%	70%	90%		Response plans	Quarterly
	Number of regional-level generic SOPs developed for the management of RRTs and surge personnel in the PHEOC	Number of regional-level generic SOPs developed/ Total number of SOPs planned for the management of RRTs and surge personnel in the PHEOC	1	1	1		1				SOP	Once
	Proportion of PHEOCs that developed SOPs for the management of RRTs and surge personnel	Number of MS that developed SOPs/Total number of MS that planned to develop SOPs for the management of RRTs and surge personnel in the PHEOC	90%	90%	90%		60%	90%			SOP	Annually
	Proportion of PHEOCs that developed training and exercise guides	Number of PHEOCs that developed training and exercise guides/total number of PHEOCs expected to develop their training and exercise guides	90%	90%	90%	50%	65%	75%	90%		Activation / AAR reports	Annually
	Proportion of PHEOCs that validated the key developed core PHEOC policy, plans and procedures (handbook/ plan and related procedures)	Number of validated key PHEOC policy, plans and procedures (legal document, handbook, and guides)/ total number of key PHEOC policy, plans and procedures expected to be validated	90%	90%	90%	50%	60%	75%	90%		Workshop reports	Annually

PHEOC core component	Indicators/ Performance measures	Indicator definitions / Calculations	End target (both)	End target (Africa)	End target (Eastern Med.)	Annual target (both)					Source of data	Frequency of data collection
						2023	2024	2025	2026	2027		
	Proportion of PHEOCs that applied standard response structure/ the IMS to coordinate emergency management	Number of PHEOCs that applied IMS to coordinate responses/ total number of PHEOCs expected to apply standard response structure/IMS to coordinate emergency response operations	90%	90%	90%	55%	65%	75%	90%		Activation / AAR reports	Annually
	Number of PHEOC experts deployed from regional levels to assist MS with the review and operationalization of key PHEOC policy, plans and procedures	The number of MS that received PHEOC experts from regional level/ total number of MS that planned to receive PHEOC experts from regional level offices	42	26	16	8	18	28	35	42	Deployment mission reports	Annually
Human resources, training, and exercise	Proportion of PHEOCs that have assigned themselves minimum expected routine staff	Number of PHEOCs that have assigned the minimum expected routine staff for day-to-day preparedness activities/ total number of active PHEOCs	100%	100%	100%	55%	65%	75%	100%		Annual Perform. Report	Annually
	Proportion of PHEOCs with a regular training programme to train their staff and surge staff	Number of PHEOCs with regular training programme/ total number of PHEOCs expected to develop a regular training programme to train their staff and surge staff based on the gap analysis	80%	80%	80%	40%	50%	60%	80%		Reports /Attendance	Annually
	Proportion of PHEOCs with trained staff on PHEOC operations and IMS	Number of PHEOCs with trained staff on PHEOC operations and IMS/total number of PHEOCs with routine staff	100%	100%	100%	45%	55%	70%	100%		Reports /Attendance	Annually

PHEOC core component	Indicators/ Performance measures	Indicator definitions / Calculations	End target (both)	End target (Africa)	End target (Eastern Med.)	Annual target (both)					Source of data	Frequency of data collection
						2023	2024	2025	2026	2027		
	Number of professionals that received regional-level ToT on PHEOC and emergency management	The number of professionals that received regional-level ToT on PHEOC and emergency management from MS of the two Regions	200	115	85		50	50	50	50	Reports /Attendance	Annually
	Proportion of MS that have trained surge capacity to support response operations	Number of MS that have trained surge capacity/total number of MS expected to have trained surge capacity	90%	90%	90%	40%	55%	70%	85%	90%	Database / Training reports	Annually
	Number of web-based PHEOC learning platforms developed, designed, and initiated	The number of web based PHEOC learning platforms developed, designed, and initiated to enhance the capacity of emergency management personnel in both Regions	1	1	1	1					Document	Once
	Proportion of PHEOC and surge personnel who completed the online PHEOC training	Number of personnel who completed the online PHEOC training/total number of personnel expected to enrol and complete the online PHEOC training	95%	95%	95%		70%	80%	90%	95%	Database	Annually
	Number of PHEM Fellowships that are adapted and initiated	The number of PHEM Fellowship programmes adapted/developed, designed, and initiated in collaboration with academic institutions to build the capacity of PHEOC and PHEOC experts in both Regions	1	1	1		1				Document/ Status report	Once

PHEOC core component	Indicators/ Performance measures	Indicator definitions / Calculations	End target (both)	End target (Africa)	End target (Eastern Med.)	Annual target (both)					Source of data	Frequency of data collection
						2023	2024	2025	2026	2027		
	Number of PHEOC and PHEM experts enrolled and who completed the PHEM-F from prioritized MS of the two Regions	The number of PHEOC and PHEM experts enrolled in the PHEM-F from prioritized MS of the two Regions in collaboration with the identified academic institutions	250	150	100		40	60	75	75	Fellowship reports	Annually
	Proportion of PHEOCs that conducted a minimum of one tabletop SIMEX per year and prepared corrective action plans	The total number of PHEOCs that conducted a minimum of one tabletop simulation exercise per year and prepared corrective action plans for each SIMEX	100%	100%	100%	100%	100%	100%	100%	100%	AAR reports	Annually
	Number of regional-level functional simulation exercises conducted	Number of regional-level functional exercises organized and conducted	4	2	2		2		2		AAR reports	Once
	Proportion of PHEOCs that conducted at least one functional SIMEX every two years	Number of PHEOCs conducted at least one functional exercise and produced reports/ total number of PHEOCs expected to conduct at least one functional exercise and produce reports	90%	90%	90%		50%		90%		AAR reports	Once
	Proportion of PHEOCs that maintained and regularly updated the national database of trained and skilled PHEOCs and surge personnel	Total number of PHEOCs that maintained and regularly updated the national database of trained and skilled PHEOCs and surge personnel	100%	100%	100%	100%	100%	100%	100%	100%	Database / Roster	Annually

PHEOC core component	Indicators/ Performance measures	Indicator definitions / Calculations	End target (both)	End target (Africa)	End target (Eastern Med.)	Annual target (both)					Source of data	Frequency of data collection
						2023	2024	2025	2026	2027		
Information management and data standards	Proportion of PHEOCs that implemented digital/ software solutions to manage PHEOC data and information	The total number of PHEOCs that implemented software to manage data and information	90%	90%	90%	60%	70%	80%	90%		Report /Software	Quarterly
	Proportion of PHEOCs that established communication, coordination and information management and sharing mechanisms between concerned bodies	The total number of PHEOCs that established communication and information management and sharing mechanisms between the key concerned bodies	90%	90%	90%	60%	70%	80%	90%		Protocol /SOP	Quarterly
	Proportion of PHEOCs that developed the capacity to produce situational reports and information products	Total number of PHEOCs that developed capacities to produce situational reports	90%	90%	90%	60%	75%	90%			SITREPs /AAR reports/ IAR reports	Annually
Communication technology and Physical infrastructure	Proportion of MS with designated PHEOC facilities (permanent, multipurpose, temporary) per requirement	Number of MS that have designated PHEOC facility per the standard/ total number of MS expected to have a designated PHEOC facility (permanent, multipurpose, temporary) per the standard	90%	90%	90%	55%	65%	75%	90%		Annual Perform. /Assessment reports	Annually
	Proportion of PHEOCs equipped with office supplies (chairs, desks, etc.) for the workstations	Total number of PHEOCs that are equipped with office supplies (chairs, desks, etc.) for the workstations	90%	90%	90%	55%	65%	75%	90%		Annual Perform. /Assessment reports	Annually
	Proportion of PHEOCs that have internet connectivity for all workstations and meeting rooms	Total number of PHEOCs that have internet connectivity for all workstations and meeting rooms	90%	90%	90%	55%	65%	75%	90%		Annual Perform. /Assessment reports	Quarterly

PHEOC core component	Indicators/ Performance measures	Indicator definitions / Calculations	End target (both)	End target (Africa)	End target (Eastern Med.)	Annual target (both)					Source of data	Frequency of data collection
						2023	2024	2025	2026	2027		
	Proportions of PHEOCs that can conduct tele-conferences	Total number of PHEOCs that can conduct tele-conferences	90%	90%	90%	55%	65%	75%	90%		Annual Perform. /Assessment reports	Quarterly
	Proportion of MS with designated PHEOCs that have identified alternate PHEOC locations per standard	Total number of MS with designated PHEOCs that have identified alternate PHEOC locations per standard	100%	100%	100%	60%	75%	90%	100%		Annual Perform. /Assessment reports	Annually
PHEOC "Centres of Excellence"	Number of guidance documents developed defining the standards and requirements for the PHEOC "Centres of Excellence" at the regional level	Number of guidance documents developed for PHEOC "Centres of Excellence"	1	1	1		1				Guidance document	Once
	Number of site selection standardized tools developed	Number of site selection standardized tools developed to identify potential sites	1	1	1		1				Tool	Once
	Proportion of requirements mobilized and supplied for the "Centres of Excellence"	Total number of centres supplied with the requirements	100%	100%	100%			33%	65%	100%	Status report / Observation	Quarterly
	Number of "Centres of Excellence" or "state of the art" PHEOCs that are established and functional based on the requirements	The number of centres established in the two Regions/ total number of centres expected to be established in both Regions	8	5	3			2	6	8	Status report	Annually
Project monitoring and evaluation	Number of annual review meetings conducted	Number of PHEOC annual review meetings conducted/ total number of PHEOC annual review meetings planned	69	47	22	69	69	69	69	69	ARM reports	Annually
	Number of external mid-term evaluations conducted	Number of external mid-term evaluations conducted/ total number of external mid-term evaluations planned	2	1	1			2			Evaluation reports	Twice

PHEOC core component	Indicators/ Performance measures	Indicator definitions / Calculations	End target (both)	End target (Africa)	End target (Eastern Med.)	Annual target (both)					Source of data	Frequency of data collection
						2023	2024	2025	2026	2027		
	Number of external end-term evaluations conducted	Number of external end-term evaluations conducted/ total number of external end-term evaluations planned	2	1	1					2	Evalu-ation reports	Twice
	Number of project managers/ consultants recruited	Number of project managers or consultants recruited/ Total number of project managers/ consultants planned	2	1	1	2	2	2	2	2	HR reports	Annually
	Number of regional-level annual prog-ress reports prepared and disseminated	Number of regional-level annual prog-ress reports prepared and dissemi-nated/total number of regional-lev-el annual progress re-ports whose preparation and dissem-ination are planned	10	5	5	2	2	2	2	2	Progress reports	Annually
NB:												
1. The percentages shown in the annual plan are cumulative, that is, adding each year's performance to the previous year's performance.												
2. The numbers shown in the annual plan are the actual plan for each year.												

8.4. Workshop participants, African and Eastern Mediterranean Regions, March and April 2022

8.4.1. Participants from the African Region, March 2022

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