REPUBLIC OF NAMIBIA

MINISTRY OF HEALTH AND SOCIAL SERVICES

PUBLIC HEALTH EMERGENCY OPERATIONS CENTRE HANDBOOK

1st Edition

2024

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Acronyms

AAR	After Action Review
Africa CDC	Africa Centres for Disease Control and Prevention
BTWC	Biological and Toxin Weapons Convention
CAP	Corrective Action Plan
CBRN	Chemical, Biological, Radiological and Nuclear (Hazards)
CIR	Critical Information Requirements
CONOPS	Concept of Operations
COP	Common Operating Picture
COVID-19	Corona Virus Disease 2019
DED	Deputy Executive Director
DHIS 2	District Health Information Software 2
DLP	Digital Learning Platfrm
DRM	Disaster Risk Management
EAR	Early Action Review
EBS	Event-Based Surveillance
ED	Executive Director
EEI	Essential Elements of Information
EIOS	Epidemic Intelligence from Open Sources
EIS	Event Information Site
EOC	Emergency Operations Centre
ePHEM	Electronic Public Health Emergency Management (software)
EPR	Emergency Preparedness and Response
EXCO	Executive Committee
GIS	Geographic Information System
HCW	Health Care Worker
HIRD	Health Information and Research Directorate
HR	Human Resources
IAP	Incident Action Plan
IAR	Intra Action Review
IBS	Indicator-Based Surveillance
ICT	Information and Communication Technology
ID	Identification

IDSR	Integrated Disease Surveillance and Response
IHR	International Health Regulations
IHR MEF	IHR Monitoring and Evaluation Framework
IHR NFP	IHR National Focal Point
IM	Incident Manager
IMS	Incident Management System
JEAP	Joint Emergency Preparedness and Response Action Plan
JEE	Joint External Evaluation
M&E	Monitoring and Evaluation
MICT	Ministry of Information and Communication Technology
MIRCO	Ministry of International Relations and Cooperation
MIS	Management Information Systems
MoHSS	Ministry of Health and Social Services
NAPHS	National Action Plan for Health Security
NDRMC	National Disaster Risk Management Committee
NGO	Non-Governmental Organization
NIPH	Namibia Institute of Public Health
NMHEPRP	Nat. Multi-hazard Health Emergency Preparedness and Response Plan
NPC	National Planning Commission
OMAs	Offices, Ministries, Agencies
OPM	Office of the Prime Minister
PHE	Public Health Emergency
PHEIC	Public Health Emergency of International Concern
PHEMC	Public Health Emergency Management Committee
PHEOC	Public Health Emergency Operations Centre
PoE	Point of Entry
PPE	Personal Protective Equipment
PRO	Public Relations Officer
PSEA	Prevention of Sexual Exploitation and Abuse
RCCE	Risk Communication and Community Engagement
RD	Regional Director
RKI	Robert Koch Institute
RRT	Rapid Response Team
SEA	Sexual Exploitation and Abuse

SDGs	Sustainable Development Goals
SimEx	Simulation Exercise
SitRep	Situation Report
SME	Subject Matter Experts
SMO	Senior Medical Officer
SOPs	Standard Operating Procedures
SpotRep	Spot Report
STAR	WHO Strategic Tool for Assessing Risk
THIRA	Threat Hazard Identification Risk Assessment
TOR	Terms of Reference
UNAM	University of Namibia
UNSC	The United Nations Security Council Resolution
US CDC	United States Centres for Disease Control and Prevention
VRAM	Vulnerability Risk Assessment and Mapping
WASH	Water, Sanitation and Hygiene
WCO	World Health Organization Country Office
WHO	World Health Organization
WHO AFRO	World Health Organization Regional Office for Africa

Foreword

Public health Eemergency Preparedness and Response (EPR) is a crucial component of public health emergency management. The National Public Health Emergency Operation Centre (PHEOC), whose scope involves infectious disease surveillance and coordination of preparedness and response activities, falls under the Ministry of Health and Social Services (MoHSS).

This Handbook provides guidance for the establishment and operations of the National PHEOC, which aims primarily at coordinating emergency preparedness, response and recovery after public health events in Namibia. In this capacity, it coordinates response efforts, gathers and disseminates information and facilitates decision making by providing a management and operational structure for routine operations as well as large-scale public health emergencies. It is based on the current PHEOC structures, experiences made during the Corona Virus Diseases 2019 (COVID-19) pandemic, as well as international standards.

COVID-19 taught us to navigate through uncertain times and realize that the significance of robust emergency preparedness cannot be overstated. Let us not waver in our determination to safeguard those who are most in need of our protection as we set out on this trip together. May this Handbook be a source of inspiration and direction, enabling us to face hardship with bravery and kindness. When we work together, we can conquer any hardship and come out stronger, more resilient, and better equipped to take on the upcoming difficulties.

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Dr. Kalumbi Shangula, MP
Minister

Ministry of Health and Social Services
Office of the Minister

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The MoHSS management thanks its staff for crafting the implementation guidelines contained in this Handbook and the exhibition of the continuous quality culture embedded in the organization. The MoHSS management further acknowledges the HIRD leadership, Robert Koch Institute (RKI), World Health Organization (WHO), the US Centres for Disease Control and Prevention (US CDC) Namibia, Africa Centres for Disease Control and Prevention (Africa CDC) and the University of Namibia (UNAM) for their continued support, commitment to the establishment, operationalisation and continuous improvement of the PHEOC as described in this document. This strong partner collaboration, steering into one direction to ensure health security is highly commendable.

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Ben Nangombe

Executive Director

EXECUTIVE DIRECTOR

MINISTRY OF HEALTH AND SOCIAL SERVICES

Executive Summary

The National PHEOC is the central platform and hub for the coordination of all prevention, preparedness, response and recovery measures in an event of Public Health Emergencies (PHE). It integrates traditional public health services into an emergency management model, is part of the national surveillance system and is immediately activated for response in case of an imminent or ongoing PHE.

This PHEOC Handbook serves as the central reference document for national PHEOC staff and stakeholders, describing the structure, mandate and objectives of the PHEOC as well as containing detailed information and instructions to assure a fully functional PHEOC during all phases of public health emergencies. Furthermore, by describing the standards of a PHEOC, this document can help in the establishment of similar structures at all public health levels.

Public health emergencies tend to be of complex nature, involving stakeholders within and outside the health sector. In order to fulfill its role as the central coordinating body during PHEs, a PHEOC relies on a strong mandate and an appropriate position within the national emergency system. Currently, the Public and Environment Health Act, 2015 (Act No.: 1 of 2015) as well as the Disaster Risk Management Act, 2012 (Act No.: 10 of 2012) constitute this legal basis for the PHEOC in emergency operations. The Public Health Emergency Management Committee (PHEMC), as described in the National Multi-Hazard Health Emergencies Preparedness and Response Plan (NMHEPRP 2024) oversees the planning and implementation process of the PHEOC.

The Handbook describes the essential functions of the PHEOC (Management, Operations, Planning, Logistics, Administration & Finance) both in the preparedness and response phase, as well as, the core components needed to achieve them. The MoHSS has adopted the Incident Management System (IMS) to respond to public health emergencies, which is the organizational and managerial model for all hazards and emergencies.

The national PHEOC operates in three different modes (watch, alert and response). In the absence of a PHE, it conducts monitoring and triage of relevant information by facilitating the collection, collation, organization, analysis, distribution, and archiving of information within the Integrated Disease Surveillance and Response (IDSR) framework. This “watch mode”

function of the PHEOC is conducted by the surveillance unit. The main sources of data are event-based surveillance (EBS) and indicator-based surveillance (IBS) activities. Once a public health threat is imminent or has occurred, the PHEOC will switch to the “alert mode” and mobilize additional resources, as needed. The tasks of teams during this mode include a risk assessment, if necessary supported by the deployment of a Rapid Response Team (RRT), compilation and submission of reports and the development of initial plans for a possible response.

Depending on the nature and the course of the PHE, the PHEOC will be activated for response (“response mode”). Predefined activation criteria will be used to make this decision, which will be followed by a further mobilization of resources for the response. The PHEOC will then operate within the aforementioned five essential functions. Towards the end of the PHE, the response structures of the PHEOC will be de-escalated and later deactivated.

It is essential that the PHEOC maintains a high level of operational readiness at all times. This includes regular training of permanent and surge staff, keeping an updated roster of experts and involving all relevant staff into regular simulation exercises (SimEx). These tasks fall under the responsibility of the PHEOC Manager, supported by all other functions, and constitute one of the main responsibilities of the PHEOC during the preparedness phase. Given the broad mandate and scope of responsibilities of the PHEOC before, during and after PHE, it is of utmost importance, that the PHEOC has, apart from a sound legal authority, all necessary resources, including personnel, and access to an adequate budget to fulfill its tasks to the highest attainable standard.

1. Introduction

1.1. Background

Namibia faces diverse threats to public health, mainly from infectious disease outbreaks and natural hazards. For better coordination and response to public health events, the Ministry of Health and Social Services (MoHSS) has established a Public Health Emergency Operations Centre (PHEOC). It serves as the central platform for coordinating preparedness and response to public health emergencies, including international threats from emerging and re-emerging epidemics and pandemics, as mandated by the International Health Regulations (IHR) 2005.

The PHEOC is located at the National Health Training Centre, Mahatma Gandhi Street, Windhoek under the mandate of the MoHSS. It outlines the processes for effective public health emergency management. The Public Health Emergency Management Committee (PHEMC) provides policy guidance, strategic level leadership and conducts risk and capacity assessments, leading to decisions on the scope and operational structure of the PHEOC as well as the broader public health emergency management model. The PHEOC supports the national Emergency Operations Centre (EOC) at the Office of the Prime Minister (OPM) by managing all public health aspects of occurring events and emergencies.

The national PHEOC integrates traditional public health services into an emergency management model. It supports and is a component of existing national disaster risk management structures. The PHEOC is part of a comprehensive program of public health emergency prevention, mitigation, preparedness, response and recovery. It serves as a focal point for the coordination of information and resources to support the incident management activities, and of the emergency planning and capacity building processes. Additionally, it leads a coordinated, multi-sectoral response. The PHEOC operates permanently on a small scale, running surveillance and preparedness activities. In case of a public health event, the PHEOC can be activated for response and scaled up, based on defined activation criteria.

1.2. Purpose of the PHEOC Handbook

This Handbook describes all processes of the national PHEOC. Its primary purpose is to serve as the central reference document for PHEOC staff, containing detailed information and instructions to assure a fully functional PHEOC during preparedness and response to public health emergencies. Furthermore, it outlines the requirements and standards to establish a PHEOC at all public health levels.

1.3. Scope of the National PHEOC

The National PHEOC focusses on all public health aspects of natural and man-made emergencies, including outbreaks of infectious diseases; natural disasters; chemical, biological, radiological and nuclear (CBRN) events as well as any other potential Public Health Emergency of International Concern (PHEIC). It adopts the multi-hazard approach.

1.4. Objectives of the National PHEOC

The primary objective of the National PHEOC is to serve as the central point of the MoHSS for organizing and coordinating, conducting and managing public health preparedness and response to PHE, while using resources in a coordinated, collective and collaborative manner. The PHEOC provides a central location for the coordination of information and resources to support the emergency management activities.

Specific objectives include:

- Provision of continuous strategic and operational guidance to allow timely and event-specific decision making, including policy guidance;
- Assurance of adequate communication and coordination, including identifying priorities, among all relevant response partners (Offices, Ministries, Agencies [OMAs] and external stakeholders);
- Collection, collation, analysis, monitoring and evaluation, presentation and utilization of incident specific data and information for action;
- Identification, procurement, mobilization and tracking of PHEOC resources, including surge capacity, services and materials;
- Provision of technical guiding documents;
- Preparation and coordination of public information, as well as risk and crisis communication, in line with other response partners.

2. Policy and planning

2.1. Legal authority

The PHEOC's legal instruments authorize and provide for specific roles and responsibilities that control its organizational and operational activities. It is therefore critical that a PHEOC legal framework is developed. The PHEOC legal authority can be created by one of the following mechanisms:

- Internally, by an executive directive (from an Executive Director or a Minister) within the MoHSS;
- Externally, by a directive from the government or from the Head of State;
- By legislation;
- By fiscal appropriation.

Until the establishment of a PHEOC-specific legal instrument, the Public and Environmental Health Act, 2015 (Act No.:1 of 2015) as well as the Disaster Risk Management Act, 2012 (Act No.:10 of 2012) constitute the legal basis for emergency operations.

One of the objectives of the Public and Environmental Health Act is to provide resources for early detection of diseases and public health risks (section 2). Under this Act, the Minister of Health and Social Services may advise the President to declare a public health emergency.

The Disaster Risk Management Act mandates the Prime Minister to set up the National Disaster Risk Management Committee (NDRMC), as the highest multi-sectoral coordination body in the country. It provides advice on matters concerning disaster risk management and is in charge of coordinating, planning, preparing and responding to all emergencies. The NDRMC is responsible to ensure that the MoHSS takes primary responsibility for public health emergencies. The establishment of the National PHEOC is in line with this mandate.

Furthermore, the International Health Regulations (IHR 2005), as a legally binding instrument for IHR States Parties, calls for countries to adapt mechanisms and put measures in place to prevent, detect and respond to PHEs and control them at source, without unnecessarily interfering with international travel or trade.

Other international frameworks to which this Handbook is aligned include:

- The Sendai Framework for Disaster Risk Reduction (2015-2030), which focuses on the adoption of measures which address the three dimensions of disaster risk (exposure to hazards, vulnerability and capacity, and hazards characteristics) in order to prevent the creation of new risk, reduce existing risk and increase resilience.
- The Biological and Toxin Weapons Convention (BTWC, 1972) for effective banning and prevention of biological and toxin weapons of mass destruction.
- The United Nations Security Council Resolution 1540 (UNSC, 2004) for states to adopt and enforce laws to prevent the proliferation of nuclear, chemical and biological weapons.
- The Sustainable Development Goals (SDGs) that aim to create a better and fairer world by 2030.
- The WHO Regional Strategy for Integrated Disease Surveillance and Response (IDSR, 2020-2030), which calls for member states to strengthen national public health surveillance and response systems at all levels, through the implementation of the 3rd edition of the National IDSR Guidelines.
- Africa CDC's Call to Action for Strengthening Public Health Emergency Operations Centres in Africa (2022), which calls upon all African Union Member States to make a commitment to establish or further strengthen functional PHEOCs.
- Africa CDC's and WHO's Joint Emergency Preparedness and Response Action Plan (JEAP, 2023) to Strengthen Health Systems and Combat Disease Outbreaks in Africa.
- The WHO Strategic Plan for strengthening Public Health Emergency Operations Centres in Member States of Africa and Eastern Mediterranean Regions (2023–2027).

2.2. Policy guidance and strategic planning

The PHEOC requires policies and technical guidance for decisions on the overall management of an emergency, as well as assistance in the coordination of inter-jurisdictional or inter-agency processes. Furthermore, the PHEOC may request additional external resources and assistance, e.g. from international partners. It facilitates the coordination of processes between the PHEOC and higher-level government entities, including government support to implement public health emergency activities. Currently, the Public Health Emergency Management Committee (PHEMC) will be responsible to provide the above-mentioned support to the PHEOC. In addition, it serves as the Steering Committee for the planning and further development of the PHEOC. Its tasks include conducting risk and capacity assessments, as a basis to decide on the scope and the operational structure of the PHEOC.

To take a risk management approach, it is imperative to assess risks to guide actions, inform planning and provide evidence to strategies and policies for better prevention, preparedness, response and recovery, which are critical to whole-of-society actions for emergencies and disasters. Namibia previously conducted a risk assessment using the WHO Strategic Tool for Assessing Risk (STAR), the Threat Hazard Identification Risk Assessment (THIRA) and the Vulnerability Risk Assessment and Mapping (VRAM). These tools helped to prioritize activities for public health management by identifying hazards and assessing their level of risk (likelihood of occurrence and possible impact).

2.3. Overarching guiding documents

The MoHSS emergency preparedness, response and recovery actions are guided by the following international and national documents:

WHO Framework for a Public Health Emergency Operations Center (2015)

This framework outlines the key concepts and essential requirements for developing and managing a PHEOC in order to achieve a goal-oriented response to public health emergencies and unity of effort among response agencies.

WHO Handbook for Developing a Public Health Emergency Operations Center, Part A: Policy, Plan and Procedures (2018)

This handbook provides practical guidance for public health authorities and PHEOC planners and staff on the general policies, planning processes, outcomes and operational procedures necessary to support a viable PHEOC. It includes descriptions of best practice and recommends contents of plans and procedures for PHEOCs.

WHO Handbook for Developing a Public Health Emergency Operations Center, Part C: Trainings and Exercises (2018)

This handbook provides practical guidance for PHEOC staff on how to plan, develop, manage and evaluate training and exercises. It includes examples of best practice and describes requirements for training and exercises for a basic, standard and advanced PHEOC, in addition to adherence to relevant standards and agreements.

WHO AFRO Handbook for Public Health Emergency Operations Center Operations and Management (2021)

This handbook provides step by step guidance for African Union Member States on PHEOC management and operations.

National Multi-Hazard Health Emergencies Preparedness and Response Plan (NMHEPRP, 2024)

The NMHEPRP (2024) aims to strengthen an effective coordination of multi-sectoral response to public health emergencies at national, regional, district and community levels. It provides guidance on timely notification, detection, rapid risk assessment and grading of public health events, including procedures for decision making and communication, the Concept of Operations (CONOPS) and the Incident Management System (IMS). Roles and responsibilities of all response partners are identified, providing a clear structure of authority.

National Action Plan for Health Security (NAPHS 2021 - 2025)

Based on the results from the Joint External Evaluation (JEE) in 2016, the NAPHS was developed to strengthen core capacities for health security and improve emergency preparedness and response to public health threats in the country. It aims to facilitate multi-sectoral engagement using the one-health approach to strengthen the implementation of IHR (2005) core capacities, including the establishment of a fully functional PHEOC.

National Technical Guidelines for Integrated Disease Surveillance and Response (IDSR 3rd Edition, 2023)

The IDSR provides technical guidance for surveillance activities on prevention, detection and response to infectious disease outbreaks, events and conditions of public health concern at all levels. It contains eight core functions and focuses on a set of priority diseases, clustered into the following categories: a) diseases targeted for elimination and eradication, b) epidemic prone diseases, and c) any other major diseases, conditions or events of public health importance. It supports Indicator-Based Surveillance (IBS) as well as Event-Based Surveillance (EBS) systems and through this, it strengthens the IHR (2005) surveillance and response core capacities.

2.4. Incident Management System

The MoHSS has adopted the Incident Management System (IMS) as the model for managing public health emergencies. The IMS is the basic organizational and managerial model for all hazards and emergencies. Its operational approach is standardized, scalable and flexible (meets the needs of all incidents, regardless of cause, size, location or complexity) with clear lines of accountability through defined roles and responsibilities. This helps to efficiently use available resources, avoid duplication of efforts and improve effective communication (internal and external) and coordination. The PHEOC plays a vital role in the IMS, as it is the focal point for the coordination of information and resources to support incident management activities.

It is crucial that the span of control in the IMS is adhered to as much as possible. This pertains to the number of individuals or resources that one supervisor can manage effectively during an incident. It is influenced by the type of incident, the nature of the task, the hazards and safety factors, as well as the distances between supervisors and the resources they supervise. The recommended IMS span of control for any supervisor is between three to seven subordinates, with the preferred number not exceeding five subordinates. This helps to ensure an effective and efficient incident management.

All emergency management activities fall under the following five essential functional areas: (1) Management, (2) Operations, (3) Planning, (4) Logistics, and (5) Administration and Finance. In case of a PHE, they are activated as required, and if activated, must have at least one person in charge.

Management

The management function is an executive, strategic, command and coordination function that involves making decisions and coordinating communication. This function incorporates the leadership and Incident Manager (IM), who is appointed by the Executive Director (ED), depending on the nature of the incident. The overall mandate of the IM is to oversee the execution of the IMS during public health emergencies as outlined in the NMHEPRP (2024).

Operations

The operations function deals with day-to-day coordination and technical guidance of response operations, as well as monitoring the use of resources. Depending on the incident, this function entails response activities and technical areas of response such as the epidemiological

surveillance, laboratory, case management, infection prevention and control, Water, Sanitation and Hygiene (WASH), Risk Communication and Community Engagement (RCCE), Point of Entry (PoE), and Mental Health and Psychosocial Support,among others.

Planning

The planning function entails the assessment of baseline response capacity, developing a response plan which includes planning and budgeting oversight, as well as the monitoring and evaluation of the situation (information gathering and analysis), including timely sharing of information, and keeping track of the availability of resources. This process is driven by an analysis of the threats, vulnerabilities and consequent risks.

Logistics

The logistics function is responsible for all processes that ensure availability and deployment of resources for the management of the incident. These include management of infrastructure, medical and non-medical supplies, fleet management and all equipment necessary for an effective response.

Administration and Finance

The administrative and finance function is responsible for all financial activities (allocation of funds, tracking expenditures, processing of payments etc.) and administrative tasks, including the management of human resources involved in the response.

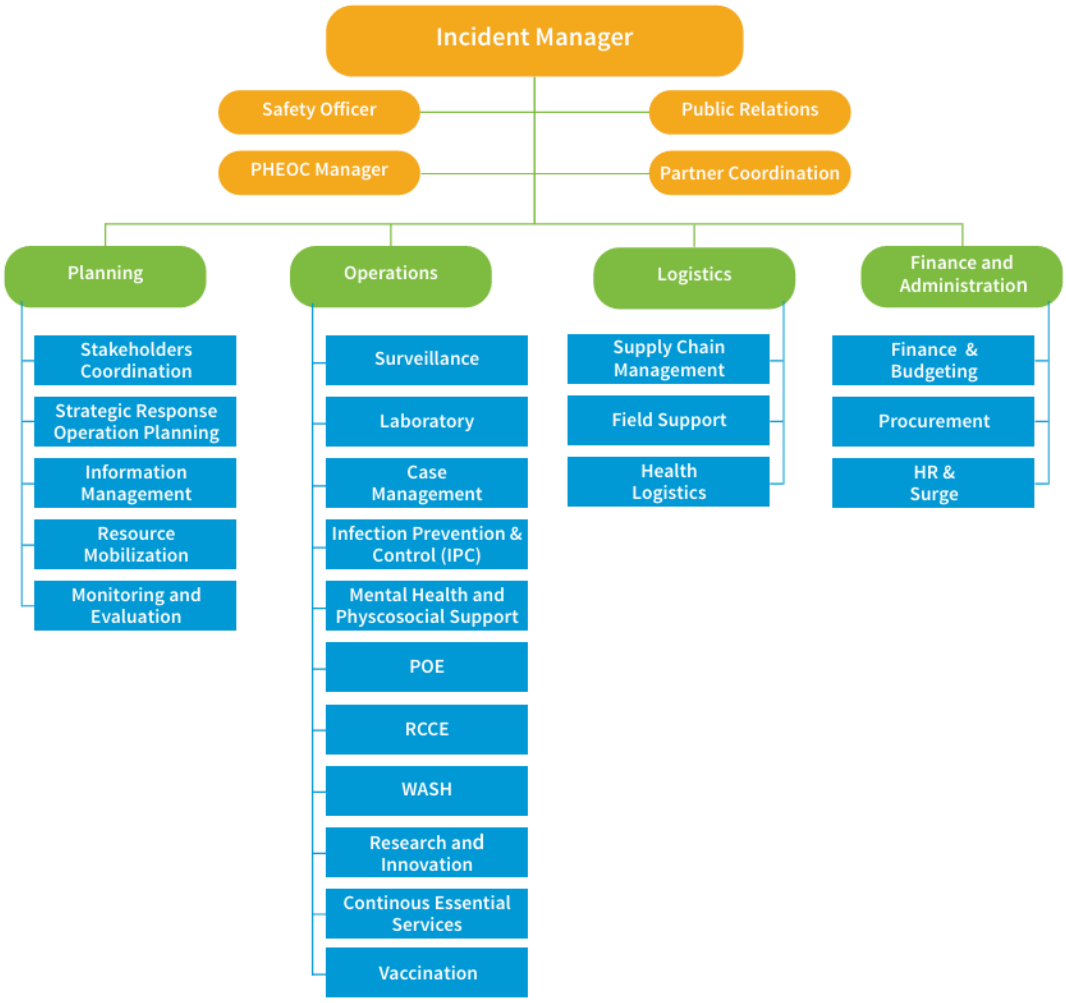

Figure 1: Incident Management System (IMS) Structure

2.5. Incident Action Plan

An Incident Action Plan (IAP) is a written plan that contains objectives and activities to be taken in the management of an incident. The IMS is managed by objectives as described in a PHE-specific IAP. Important considerations for establishing incident objectives include:

- Understanding of the organizational policy and direction;
- Assessing the current PHE situation;
- Selecting appropriate strategies to achieve objectives;
- Providing tactical direction;
- Providing necessary follow-up.

Every PHE must have an IAP that specifies the incident objectives, states the activities to be completed, assigns responsibilities, and covers a specified timeframe, also called operational period. The IAP should be put in writing, and must be drafted at an early stage (e.g. during alert

mode). It will later be adjusted according to the course of the emergency. The planning function spearheads the development of the IAP.

2.6. Concept of Operations

The full Concept of Operations (CONOPS) for emergency response mechanisms is described in the NMHEPRP (2024). It is based on the IMS, which addresses the command and control arrangements for the effective coordination of response measures. It outlines the roles and responsibilities of all stakeholders and describes the different responsibilities on the strategic, operational and tactical level.

Strategic level

The strategic level is responsible for leadership, coordination, policy making and endorsement of the response. It also ensures the availability of required resources and other needed support, including the crisis communication for the operations to achieve the established objectives. When the multi-sectoral response is escalated, the strategic level can be anchored in the NDRMC (the Office of the Prime Minister), the Cabinet or the President's Office.

Operational level

The operation level is responsible for an effective coordination of all response elements and maintenance of situational updates for strategic-level authorities, led by the Incident Manager. It further provides the technical leadership for the operational response based on the strategic guidance and develops operational-level plans to meet strategic objectives. Once activated for response, the national PHEOC serves as the central coordinating hub at the operational level. It falls under the jurisdiction of the Health Information and Research Directorate (HIRD) at the MoHSS. The PHEOC is linked to the EOC of the Directorate of Disaster Risk Management at the Office of the Prime Minister, which coordinates other major emergencies.

Tactical level

The tactical level is responsible for ensuring that the day-to-day activities achieve the established strategic and operational goals and objectives. It should implement measurable actions and use the available resources to achieve the desired results. Decisions related to tactical actions should be made at this level. An overview of the CONOPS, including command and control structures at different stages of public health emergencies is shown in Figure 2.

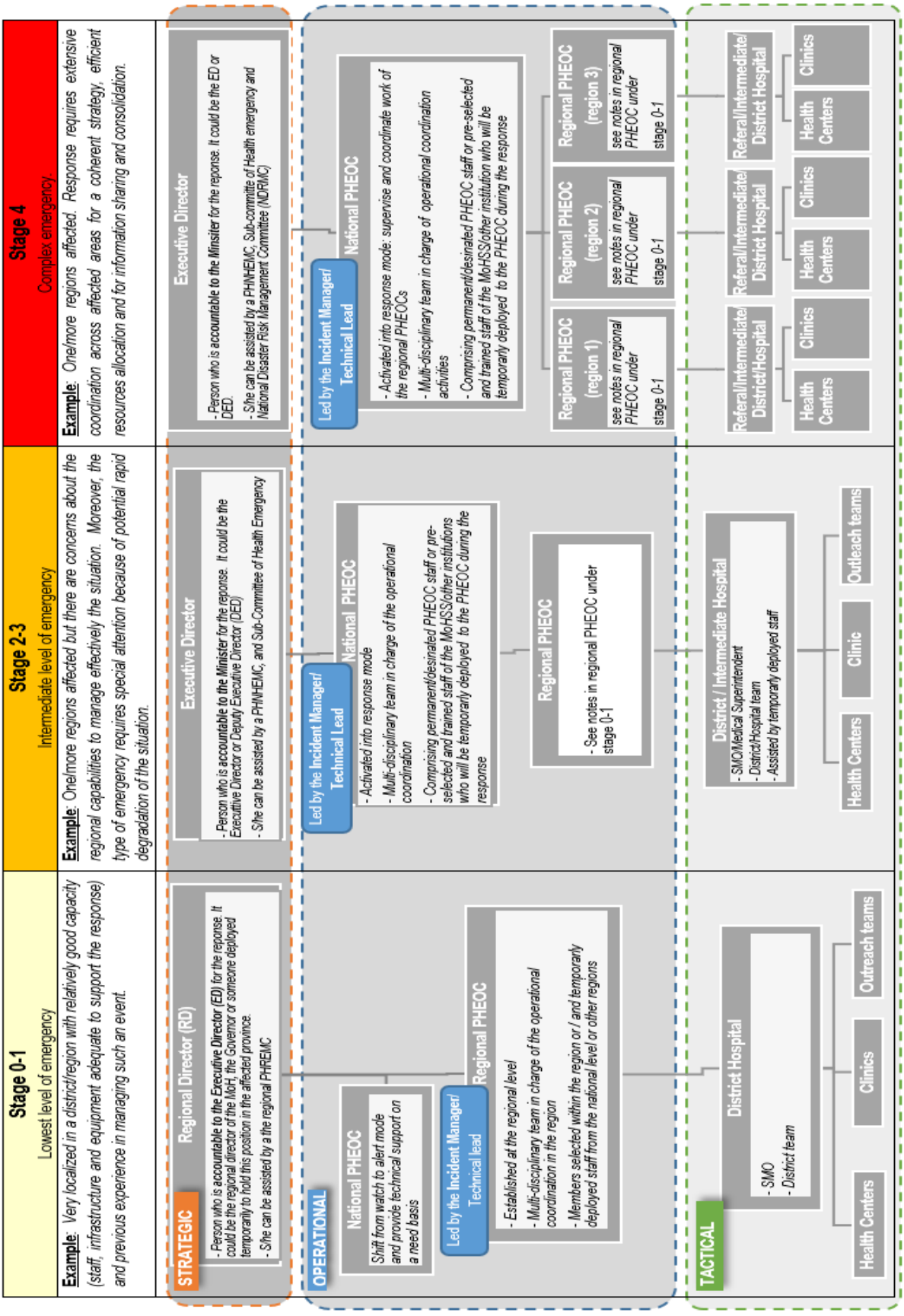

Figure 2: CONOPS for different emergency stages

International partners including cross-border collaboration

The management function of the national PHEOC is responsible to manage all linkages with international partners in consultation with the National Planning Commission (NPC) and / or the Ministry of International Relations and Cooperation (MIRCO).

Based on the IHR (2005), the National IHR Focal Point (IHR NFP) is responsible for sharing all relevant information with the WHO Country Office (WCO) and other countries through the IHR NFP network. The PHEOC Manager must be a member of the IHR NFP. The tasks for the IHR NFP include sharing of all relevant information with regards to alert investigation, confirmation, cross-border contact tracing, outbreak investigation and other cross-border-related activities.

3. PHEOC structure, essential functions and core components

The national PHEOC falls under the jurisdiction of the HIRD at the MoHSS. It is set up to respond to national public health events and emergencies in accordance with all the response requirements established in the IHR (2005).

The PHEOC runs the routine surveillance, preparedness and response activities. When it is activated for response, the operational activities scale up and the IMS is implemented.

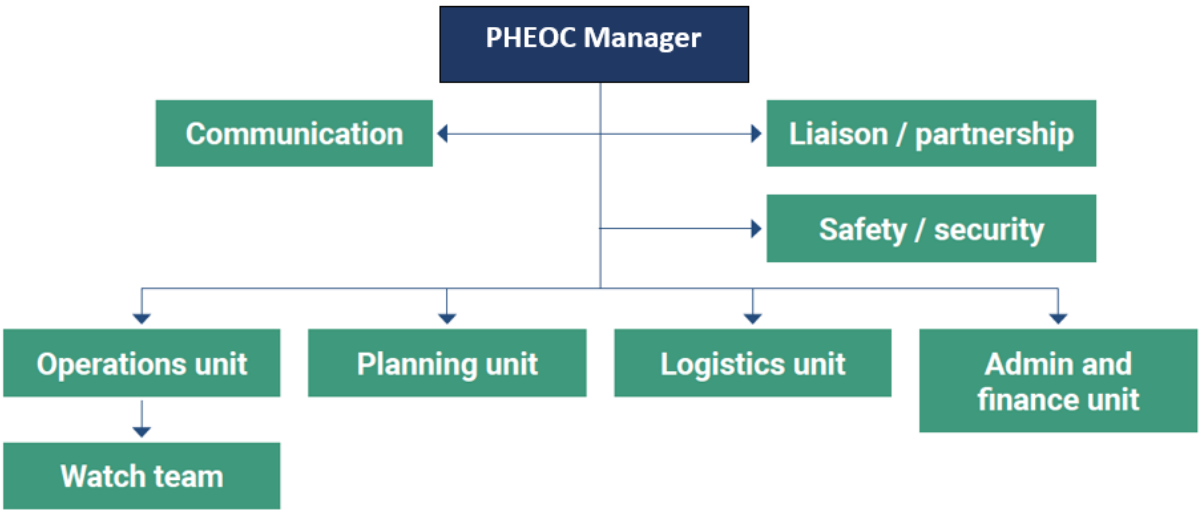

Figure 3: Basic PHEOC structure adopted from the WHO PHEOC Framework

3.1. Essential functions

The PHEOC operational structure provides an organizational model for the processes involved in public health emergency response. During response, the PHEOC will support the IMS with flexibility to adapt to different events, agencies, and jurisdictions. The PHEOC has five essential functions, which mirrors the IMS functions:

Management

The Management function is responsible for the strategic development, the direction and overall coordination of PHEOC functions and incidents or events, which includes coordinating risk communication and liaison with other OMAs.

Preparedness phase

In the preparedness phase, the overall management of the PHEOC lies with the Director of HIRD with operational oversight under the Deputy Director Epidemiology Division. The daily operations of the PHEOC are coordinated by the PHEOC Manager, who is appointed by the ED

with recommendation by the HIRD Director. The PHEOC Manager ensures that supplies and equipment of the PHEOC are stocked, maintained, and ready for an event and ensures that the PHEOC staff are trained in their duties and responsibilities. The PHEOC Manager further spearheads the development of the SOPs and ascertains that staff are well versed with them, and plans for simulation exercises.

Response phase

In case of a public health emergency, the PHEOC Manager advises the chairperson of the PHEMC to convene a meeting to determine the need for activation of the IMS. If an Incident Manager (IM) has not been appointed yet, the PHEOC Manager leads the response activities until the IM is officially appointed. The IMS will operate from the PHEOC.

Operations

The operations function supports the field level and provides direct response to the incident or event. At higher levels, it provides coordination and technical guidance.

Preparedness phase

During the preparedness phase, the PHEOC has a limited number of routine staff that conducts routine surveillance and other preparedness activities. Surveillance activities should include indicator-based and event-based surveillance (including signal detection through the call centre and media scanning using the Epidemic Intelligence from Open Sources platform [EIOS]). PHEOC staff may support outbreak investigations in the regions.

Important preparedness activities include regular training for PHEOC and surge staff as well as regular epidemiological video conferences to enable a constant exchange with the regions, including to provide them with technical updates such as new guidelines, recommendations and reports.

During preparedness, the operations function of the PHEOC monitors all incoming communications and is responsible for the respective distribution to other PHEOC functions, disciplines and sectors. Epidemiological important notifications (e.g. IHR NFP notifications, WHO EIS notifications) are forwarded accordingly.

Response phase

During the response phase, depending on the nature of the emergency, the operations function will be responsible for:

- Coordinating resources to respond directly to an event e.g. vaccines;
- Supporting tactical operations, e.g. contact tracing, treating sick / injured people;
- Coordinating response activities including rapid response and scaling up community engagement;
- Outreach for health promotion and case management;
- Operations monitoring.

Planning

The planning function is responsible for gathering and processing all relevant data, and planning for PHEOC activities, based on the likely course of the incident and the resources available.

Preparedness phase

The planning unit works with the PHEOC Manager to develop and update plans and procedures, to conduct exercises to validate components of existing plans and identify gaps, to follow up on the implementation of recommendations from after-action reviews, to maintain situational awareness; and to support staff training.

Response phase

- Developing and updating the Incident Action Plan;
- Overseeing the gathering, analyzing and processing of all relevant data, and use of information to support the production of plans and reports;
- Disseminating information (e.g. situation reports) to relevant stakeholders;
- Estimating the probable course of the PHE;
- Compiling and presenting information to support situational awareness;
- Mobilization and tracking of resources for the emergency response;
- Maintaining records of response activities to support accountability;
- Developing corrective action plans following after-action reviews and post exercises, and monitoring its implementation;
- Preparing the demobilization plan and monitoring its implementation;
- Monitoring and evaluating the implementation of response activities.

Logistics

The logistics function supports the PHEOC by managing all necessary resources such as transportation, fuel, airtime, internet, warehousing, and facility management required for preparedness and response activities.

Preparedness phase

During the preparedness phase, the logistics function is responsible for ensuring availability and maintenance of the following:

- Office furniture (e.g. chairs, tables);
- Stationary equipment (e.g. computers, radios, image projectors);
- Housekeeping materials;
- Emergency medical kits;
- Megaphones;
- Personal protective equipment (PPE; e.g. gloves, aprons, masks, sanitizers);
- Waste management (solid, liquid and hazardous);
- Management of emergency supplies (temporary or permanent warehouses);
- Management of surge staff (database with contacts will be maintained).

Response phase

During the response phase, tasks of the logistics function additionally include:

- Sending requests for needed response-specific resources (e.g. vehicles, GIS software);
- Managing and providing back-up resources;
- Procuring medical supplies (e.g. drugs, lab specimen collection tools, vaccines);
- Procuring ICT supplies;
- Procuring water & food supplies;
- Managing dead bodies.

Finance and Administration

The finance and administration function is responsible for overseeing the financial management, tracking of all preparedness and response costs, preparation and monitoring of respective budgets, as well as the development and maintenance of administrative records.

Preparedness phase

During the preparedness phase, specific tasks include:

- Assistance in the orientation phase for new PHEOC staff;
- Organize field support visits;
- Secure storage of equipment;
- Storage of administrative records;
- Maintenance of inventories;
- Management of petty cash;
- Management of staff finances (e.g. salaries, per diems);
- Payment of contractors;
- Preparation and management of budget lines;
- Management of claims (e.g. compensation);
- Reconcilement of accounts;
- Management of insurance payments.

Response phase

Additional tasks during response include:

- Management of surge staff to support response activities;
- Purchase and management of staff airtime;
- Payment of contractors for outsourced work;
- Monitoring of financial expenditures;
- Mobilization of additional funds if needed.

It is important to note that support functions such as logistics as well as administration and finance may not sit routinely at the PHEOC, but a strong linkage should be established and a responsible staff identified who work closely with the PHEOC Manager.

3.2. Core components

To ensure the PHEOC operates in accordance with the minimum standards outlined in the IHR JEE, a PHEOC should meet minimum requirements for each component. These core components ensure full operationalization of the PHEOC:

- Plans and Procedures
- Communication Technology / Physical Infrastructure
- Data and Information
- Skilled, trained personnel

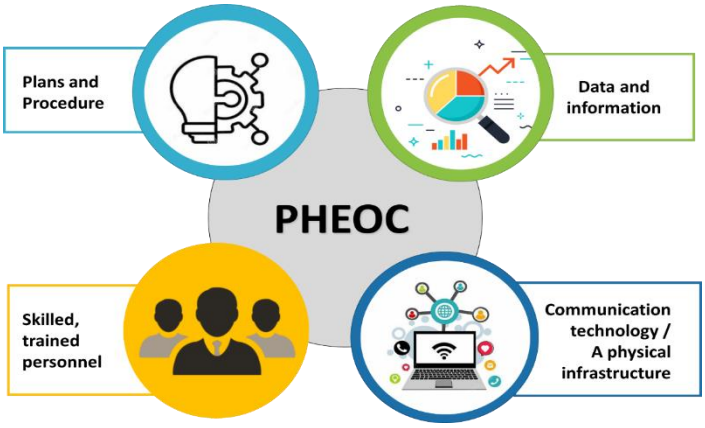

Figure 4: PHEOC Core Components

Plans and Procedures

All strategies and activities affecting the PHEOC are described in a set of plans and procedures. This PHEOC Handbook is the key document that provides step by step guidance for the management and operations of the PHEOC. Standard Operating Procedures (SOPs) are developed to give systematic guidance for each functional area. While internal documents focus on the management of PHEOC tasks, external plans and procedures include a variety of other stakeholders, according to the national preparedness and response strategies.

Internal plans and procedures

The following documents describe all relevant internal processes of the PHEOC:

- PHEOC Handbook
- Incident action plan / response plan
- Public communication plan
- PHEOC communication plan
- Training plan
- Function specific costed work plans (logistics, human resources, surveillance)

SOPs are the main technical sources for PHEOC staff, describing the tasks of the five essential functions. Specific SOPs for the PHEOC include:

- Development and distribution of information products (situation reports);
- PHEOC internal communication and collaboration;
- PHEOC external communication and collaboration with other sectors and stakeholders;
- Activation, De-escalation and Deactivation;

- Call centre operation;
- Handling of equipment;
- Data management;
- Documentation including archiving;
- Procurement.

External plans and procedures

- National Multi-hazards health emergency preparedness and response plan;
- Disease / hazard-specific plans or contingency plans;
- Prevention and mitigation plans.

Communication Technology / Physical Infrastructure

Information and communications technology (ICT)

A sufficient ICT infrastructure is essential for all PHEOC operations. This must include as a minimum standard: sufficient storage servers; large screen video screens; computers; internet connection; document scanners; mobile and hardwired phones; shelves; printers; projector; office supplies; paper-based forms (as back-ups in case of technology failure); back-up system for retrieving data; technical expertise advising on hardware acquisition and ICT support; list of systems infrastructure requirements; trained personnel.

Physical infrastructure

As at September 2024, the National PHEOC is physically located at the National Health Training Centre, Mahatma Gandhi Street, opposite the Hage G. Geingob School of Medicine Campus, Windhoek. This location ensures proximity and a close level of collaboration, coordination and information exchange with implementing partners. Five rooms at the premises are dedicated to the PHEOC with sufficient tables, chairs and ICT infrastructures.

The National PHEOC is strategically located, providing sufficient space for offices, car parking and essential supplies. It is easily accessible for all stakeholders (e.g. external partners and agencies), and is equipped with the boardroom and open spaces, that allows for meetings, in a relatively quiet surrounding. The call centre is equipped with a toll-free hotline and eight telephone cubicles, that allow for eight callers to be attended to simultaneously. The PHEOC is in a secured environment and survivable in case of threats and emergencies. The facility is of

sufficient size to accommodate all PHEOC functions in reasonable comfort with adequate sanitary facilities, for the personnel who may on occasion be deployed there for considerable periods. There are reasonable spaces for both meeting areas and relatively quiet working spaces. The PHEOC hosts a Digital Learning Platform (DLP) hub, to train health care professionals and disseminate guiding documents. In the event of disruption of physical PHEOC, a licensed Zoom account is available to enable setting up a virtual PHEOC as a backup facility.

Data and Information

Data standards

Data standards include:

- Availability of all needed types of data (e.g. event-specific data, clinical and epidemiological data, contextual data);
- Set of Essential Elements of Information (EEIs) and Critical Information Requirements (CIRs);
- Adequate software standards for all PHEOC essential functions;
- Interoperability; and
- Data sharing guideline / policy.

Information systems

Availability, accessibility, quality, timeliness and usefulness of information must be assured to support all PHEOC functions. It is envisioned that the WHO PHEOC information system, known as ePHEM, will be deployed for the data management at the PHEOC.

Requirements for the information systems include:

- Data security, privacy and confidentiality;
- Uninterrupted operationality (back-up system).

The PHEOC is adopting a "phased approach" for the implementation of the information systems; e.g. Phase 1: leadership, coordination and assessment; Phase 2: articulate clear vision; and Phase 3: involves actual implementation of the information system.

Skilled, trained personnel

The PHEOC is staffed with personnel from the Epidemiology Division of HIRD, MoHSS. During the response phase, once the IMS is activated, IMS team should operate from the PHEOC

and surge staff may support PHEOC operations on a needs basis. These include response teams from different sectors.

All members will be oriented on existing PHEOC strategies and standards (i.e. PHEOC Handbook and SOPs) during the preparedness and response phase. All relevant team members within the response should be listed in the organizational database at the PHEOC, including their contact details. A roster of trained surge staff is kept and regularly updated by the PHEOC Manager.

4. Emergency operations

4.1. Modes of operations

Watch Mode

During the watch mode, the PHEOC is manned by routine staff, including the PHEOC Manager, watch staff and key section heads such as planning and operations. Surveillance is one of the key activities conducted during watch mode, where the team constantly monitors and triages information on public health events by facilitating the collection, organization, analysis, distribution and archiving of information within the IDSR framework.

The PHEOC is in a constant state of preparedness and readiness to support any response to a public health event. This includes training of staff and conducting simulation exercises. In case of information that potentially will lead to an alert or response mode of the PHEOC, the surveillance unit informs the PHEOC Manager. In the case of PHEOC activation for a response, there must be a designated surveillance function for watch mode for continued monitoring of public health.

The activities during watch mode are guided by critical information requirements as described in section 5.

Roles and responsibilities of watch staff include:

- Using both event-based and indicator-based surveillance to monitor and triage incoming information;
- Draft or prepare reports;
- Distribute reports, documents, and notifications to relevant sections, departments, persons responsible, and stakeholders where appropriate;
- Ensure that the PHEOC has supplies and that equipment is operational;
- Support the coordination of briefing meetings including convening of the PHEMC meetings as required;
- Support management of public health events that do not meet the criteria for activation of national PHEOC for response.

Alert Mode

The alert mode is the early standby phase of activation, when an incident or event has occurred or is imminent. It characterised by an increased level of awareness, intensified surveillance and monitoring activities of the incident or event in preparation for a potential PHEOC activation. Alert mode is a limited PHEOC activation, whereby additional 2-3 staff will be mobilized for the PHEOC to support the watch staff, to support activities such as the drafting of reports.

Alert mode activities include, but are not limited to:

- Regular sharing of information and / or guidance among all relevant stakeholders;
- Conducting targeted capacity building / training according to the specific event;
- Involvement and coordination of other sectors and external partners;
- Preparation of IMS implementation;
- Appointment of an Incident Manager (IM), depending on the magnitude of the imminent event;
- Initiation of preparation for deployment of financial and logistic resources, and identification of experts to staff the PHEOC;
- Notification of all primary NPHEMC members;
- Request members of the NPHEMC to assist at the PHEOC with Emergency Management;
- Organization of an ad-hoc meeting of the NPHEMC, based on the event, the frequency of the meetings might increase;
- Deployment of Rapid Response Teams (RRT) to conduct risk assessment; and
- Develop an Incident Action Plan (IAP).

The PHEOC conducts a comprehensive risk assessment to determine if the incident requires PHEOC activation for response and determine the appropriate level of response. The assessment will be conducted at all levels involving the surveillance unit and the Emergency Preparedness and Response (EPR) team. The levels of activation are determined based on the results of the initial rapid risk assessment after an event has occurred.

Rapid Response Team

The Rapid Response Team (RRT) is a multi-disciplinary team, trained to provide support at regional and district level in the event of any public health emergency. The RRT is ready to be

deployed and provides surge capacity, and complementary expertise to respond to emergencies. RRT members will participate in training and exercise programs planned by the PHEOC.

In case of a public health incident, an RRT can be deployed to the tactical level (field level) to conduct investigation and support response operations. The RRT operates at the tactical level and the operations section of the IMS in the PHEOC oversees their activities.

Response Mode

The response mode is the operational mode in which the PHEOC is actively directing all response activities towards a specific incident or event.

If the PHEOC Manager or the Incident Manager (if appointed) decides that the PHEOC moves from alert to response mode, then the PHEOC will be activated for response, based on the grading of the event. The PHEOC should be capable of activating within 120 minutes as required by the IHR indicator for a PHEOC to operate according to minimum standards. The ED will lead the strategic decisions advised by the NPHEMC. Watch mode activities will continue during response mode.

In response mode, most of the activities conducted during alert mode continue in addition to the following:

- Appoint an Incident Manager (IM), if not appointed yet;
- Continue the coordination with other sectors and external partners;
- Implement all relevant thematic pillars;
- Identify and mobilize additional subject matter experts;
- Incorporate further surge staff for daily operations;
- Deploy resources;
- Implement the IAP.

The PHEOC modes of operations can be summarized as shown in figure 5

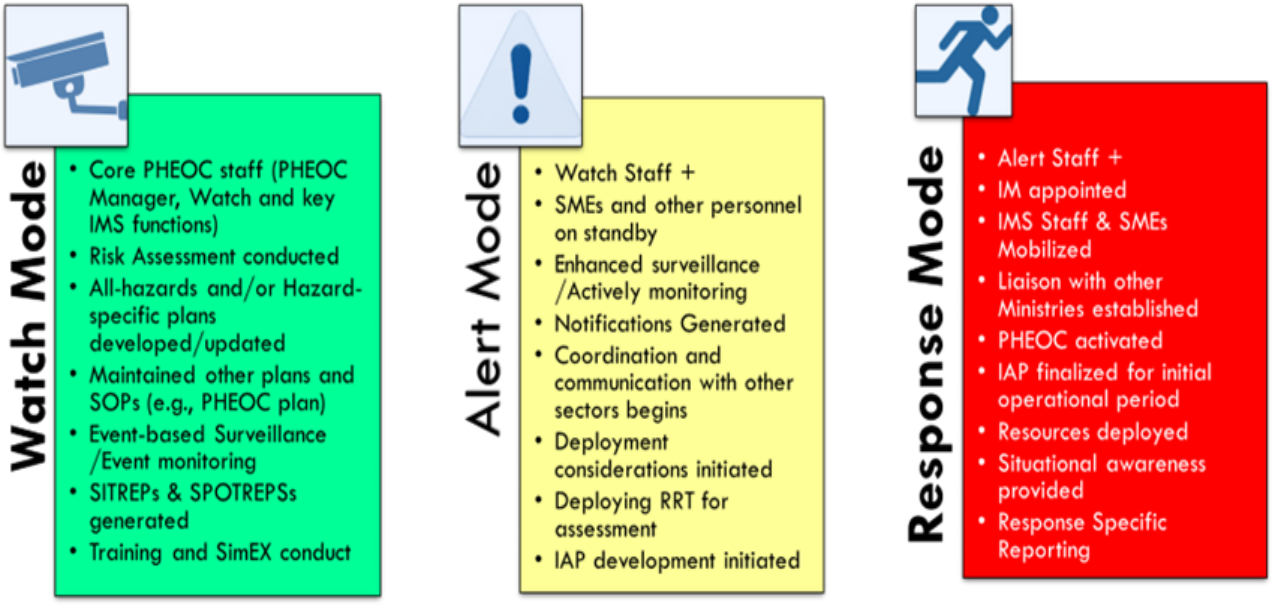

Figure 5: PHEOC Modes of Operations

4.2. Activation for response

Authority

The activation and deactivation of the PHEOC is decided by the Minister of Health and Social Services, as advised by the NPHEMC. Activation will be based on the results of the risk assessment. The Minister of Health and Social Services may also directly provide directives for activation.

Activation

The PHEOC will deal with all public health emergencies depending on the magnitude taking into consideration the complexity, scope, and impact. The resources and coordination required will depend on the scale of the emergency. Large-scale emergencies might exceed and overwhelm the national resources and capacities prompting a need for health stakeholders' support. As part of the IMS management function, the liaison / partner coordination position mobilizes and supports to coordinate all response partners.

The PHEOC is functional at all times, performing watch mode activities. It will be activated for response based on the stage of the public health emergency as described in the NMHEPRP. During Stages 0 – 2 of the graded emergencies, the PHEOC uses the lowest level of resources by

using regular PHEOC staff. However, PHEOC will provide additional support to the affected region(s).

During Stage 3 of the graded emergencies, the PHEOC uses increased resources, including additional staffing (in addition to the regular PHEOC staff), moderate cost for the response, and increased but manageable reporting requirements. National surge staff will be activated to support appropriate response activities, based on their assigned roles and responsibilities. The PHEOC mobilizes additional resources and supports the NPHEMC. The PHEOC will be prepared for any escalation and to work extended business hours up to 24/7, as needed.

During Stage 4, which is the highest graded level, the PHEOC will deal with the emergency of greatest magnitude, complexity, scope and impact. This requires the greatest resources and coordination. By this time, the national resources and capacities are exceeded and overwhelmed and substantial international support is required.

The national level will mobilize its existing resources and require substantial international support. The health sector will continue mobilizing resources from different sectors and stakeholders. During this level of activation, coordination of the response will be managed by the health sector, with additional support from the National Disaster Risk Management Committee in line with the National Disaster Risk Management Act, 2012.The PHEOC will operate up to 24/7 with full staff.

The IMS scale will be adjusted in accordance with the activation level. A risk assessment is conducted to inform the discussion of the NPHEMC, which will then propose to the Minister of Health and Social Services, the activation of the PHEOC for a response.

Criteria for activation

The activation of the PHEOC is based on the following activation criteria:

- The capacities of the region or district affected by the incident are overwhelmed;
- Any condition that is declared a Public Health Event of International Concern (PHEIC) in line with International Health Regulations (IHR, 2005);
- Any condition that is declared a Public Health Event of Continental Security (PHECS) by africa CDC
- An emergency with the potential for a high public health burden;

- The capacity of regular staff at the PHEOC is overwhelmed and additional support and resources are required;
- Leadership directive;
- Any condition with the potential for cross border effects;
- High media interest;
- When the event/emergency affects more than one region.

Activation notification

The Minister of Health and Social Services, advised by the NPHEMC, will communicate with the relevant stakeholders on the level of activation of the PHEOC.

4.3. De-escalation and deactivation

De-escalation

The planning section will conduct risk assessments at regular intervals and review the activation level in order to support the decision making for de-escalation.

When the scope, complexity, and severity of the health emergency decreases, de-escalation of the level of activation needs to be considered. Considerations for de-escalation include:

- Decrease in required human and material resources;
- Reduced Media interest;
- Reduced geographic extent;
- Executive / leadership directives

  In case the health emergency is reclassified as no longer PHEIC in line with IHR 2005 or PHECS or/and has less impact on local capacity.

Deactivation

When response activities are no longer required, the IMS will be deactivated and the PHEOC returns to watch mode for routine monitoring. The NPHEMC will recommend the deactivation of the response, which will be communicated to the Minister by the ED. The Minister will declare the an end to the PHE.

Furthermore, the PHEOC deactivation can be considered if one of the following criteria applies:

- The recent risk assessment indicates that the outbreak/event is contained and is under control;

- The trend and data from the field suggest that the outbreak/event has declined;
- The event is no longer a public health threat;
- The response level regional and district levels are no longer overwhelmed and have the capacities to address the incident;
- Additional resources are no longer required;
- The event/outbreak has been declared over by MoHSS

Deactivation notification

The Minister of Health and Social Services, advised by the NPHEMC, will communicate with the relevant stakeholders on the deactivation of the PHEOC.

A detailed description of the processes for activation, de-escalation and deactivation of the PHEOC is described in the "SOP for Activation, De-escalation and Deactivation" (MoHSS, 2024).

5. Information management

5.1. Types of information

The information on public health is vast and comes from multiple data sources. The PHEOC is responsible for early warning systems through collecting, collating and analyzing all information on potential health threats, from multiple data sources. The main sources of data are Event-Based Surveillance (EBS) and Indicator-Based Surveillance (IBS).

The three types of information required for decision-making by PHEOC are:

- Event-specific information;
- Event management information;
- Contextual information.

Essential Elements of Information

An Essential Element of Information (EEI) is a piece of information that is required for decision-making in the PHEOC in a timely manner across all IMS functions. EEIs include standard data and information items for routine situational awareness; provide context and contribute to the analysis; are included in situation reports; and facilitate identification of response activities and material requirements.

EEIs include:

- Case definitions for all notifiable diseases and conditions outlined in national IDSR technical guidelines;
- Number and distribution of cases and their status;
- Resource mapping, includes human, financial and logistic resources;
- Roster of surge staff, including subject matter experts (SMEs);
- Bed capacities of health facilities;
- Availability of health supplies (pharmaceuticals, PPEs);
- Mass gathering events.

Critical Information Requirements

Critical Information Requirements (CIRs) are a high-priority subset of EEIs, and are used to trigger immediate or mandatory action, such as issuing SpotReps and SitReps. It is information that is vital to facilitating situational awareness and decision-making. The level of urgency and

the need for action distinguish CIRs from EEIs. The CIRs include collection, analysis and dissemination of relevant information on public health risks, epidemic investigation and response, needs assessment, overall health sector response, gaps, and performance.

CIRs require prompt reporting by the watch team and are monitored on a regular basis. The following list of CIRs is not exhaustive, it can be amended to meet the information requirements of the PHEOC:

- All PHEICs in accordance with IHR requirements;
- PHE that exceeds the threshold defined in the IDSR or being monitored by PHEOC;
- Any acute PHE that requires assistance from WHO and other partners;
- Any event of media interest;
- Injury / death of response personnel deployed in the field;
- Any event affecting operation activities;
- Upward or downward change in grade of a current PHE;
- An incident which negatively impacts the facilities, activities, or operations of the PHEOC or MoHSS;
- An unusual or serious event reported from the operational level.

When the PHEOC is activated for response, event-specific CIRs are developed to guide information gathering and reporting for the specific event. The PHEOC Manager in consultation with the IM ensures that CIRs are developed.

5.2. Information flow

Coordination of information on PHEs is very crucial. The PHEOC should serve as a hub for reporting public health events and coordination of information. All information on PHEs must systematically flow to the PHEOC. This includes information flowing from community, event sites, and health facilities (including treatment centres, laboratories and points of entry) from facility level to district, regional, and national levels and is received by the PHEOC at the national level. The PHEOC watch staff collects, triages, verifies, analyses, interprets and disseminates information to the PHEOC Manager for public health action. All communication to and from the PHEOC will be done using the PHEOC official email address **pheoc@mhss.gov.na**, which all PHEOC staff should have access to.

5.3. Recording and documentation

An appropriate PHEOC information system will be developed to record information which includes logging activities, tracking human resource (HR) deployments, tracking partner activities, tasking, scheduling, etc. It is extremely important to accurately document actions taken during preparedness and response to emergencies. This will assist in tracking and monitoring the effectiveness of the response activities. All documents related to an event will be archived. A central repository (preferably online) to ease access, should be developed for the PHEOC where all relevant information on incidents will be archived. The planning function is responsible for the documentation and must ensure proper documentation of all relevant information on response operations.

5.4. Analysis and visualization

The planning function is responsible for collecting, analyzing and visualizing event information such as human resource deployment, the status of material resource deployment (what has been deployed when, and where), and mapping partners' activities (who is doing what, where, and when), what is called "4W matrix". The PHEOC will regularly analyze epidemiological data, produce, display, and share epidemiological situation maps and trends. The PHEOC needs to define the type of information to be displayed on the walls, boards, and screens of the PHEOC. Information for display include: PHEOC schedules, maps and trends of events, task tracking, etc. In addition, it is vital to post on the PHEOC walls big size (A0 or bigger) maps of the country depicting districts, regions, bordering countries, rivers, health facilities. It is vital for the PHEOC to have key analytical and visualization tools such as GIS, EpiInfo, DHIS2, Go.Data, etc. and PHEOC staff must have the capacity to use these tools.

5.5. Information products

The PHEOC produces various information products, to support informed decision-making,. Table 1 provides a list of information products from PHEOC, frequency of reporting and target audience

Table 1: PHEOC Information Products

Information product / outputs	Frequency of report	Report distributed
Spot Report (SpotRep)	Once off, when the alert is received	Leadership
Situation report (SitReps)	To be determined by nature of event	To be determined
Summary of Event to leadership (max 2 pages)	Twice a week	Policy / leadership group EXCOs
Feedback report	Weekly	To be determined
4W (who, what, where, when) matrix	Depending on level of operations	To be determined
Investigation report	Depending on occurrence of PHE	To be determined
Early Action Review	Within 10 days of responding to an PHE	To be determined
Intra-Action Review Report	Depending on the PHE	To be determined
After-Action Review Report	Within three months following the end of an PHE	To be determined
SimEx report	Depending on level of operations/evaluation possibilities	To be determined
Quarterly report	Every quarter	To be determined
Annual report	Once a year	To be determined

5.6. Activity tracking

To coordinate response efforts and avoid duplication, it is vital to know who is doing what, where and when, known as the 4Ws matrix. This information is maintained by the PHEOC and regularly updated and shared throughout the course of the response (the PHEOC has to determine the frequency depending on level of operations). The leadership, incident management team and partners will receive this report.

The liaison and partnership coordination focal person is responsible for ensuring the availability of information on the 4Ws. The PHEOC will maintain data on partners' capacity by area of intervention.

Meetings and activities schedule

All planned activities, conferences and meetings (regular and ad hoc) will be documented and regularly displayed in the PHEOC. The PHEOC Manager ensures updating of the information. The schedules need to be displayed (during watch, alert and response modes) to provide information on what activities are occurring at the PHEOC.

5.7. Emergency contacts

The following dedicated call line for the PHEOC should be used as an emergency contact point: 0851100100. The PHEOC toll-free line: 0800100100 is being used by individuals to report any event to the call centre. It is important that these lines are functional at all times.

The PHEOC maintains a list of contacts of key stakeholders, including all levels of health system delivery, government sector, key staff, partner organization representatives, and disaster management. In addition, the national PHEOC will maintain contacts of other EOCs that it connects to, including telephone number, address, and video and teleconferencing details.

6. Communication

6.1. Internal communication

All internal communications to and from the PHEOC should be done in line with the established communication channels of the MoHSS. To establish effective communication within the different sections of the PHEOC and the tactical level, the following actions shall be taken:

Regular meetings with PHEOC staff and IMS team coordination meeting

The PHEOC Manager ensures regular meetings with PHEOC staff. This platform facilitates communication between the different PHEOC functions and serves as a mechanism for sharing of updates for a common operational picture (COP), decisions for action and coordination of the emergency response. When the PHEOC is activated for response, regular IMS team meetings are scheduled. The frequency of meetings is determined based on the severity and evolution of the event.

All IMS staff and partner organizations participate in these meetings. The IM chairs this meeting. Action points from this meeting will be recorded and their implementation monitored against the assigned timeline. The IM and function leaders are responsible for assigning responsibilities and monitoring implementation.

Minutes of this meeting are compiled and shared with the team for comments within 24 hours and finalized. The planning team is responsible for preparing minutes and archiving them in a central repository. The IM will report issues and challenges that require leadership decisions and present them during the leadership meeting.

Sections coordination meetings

Each section meets regularly (based on the complexity and severity of the event) to enhance communication and facilitate the coordination of response activities.

Strategic communication

Reporting to leadership

The IM prepares updated reports regularly (based on the complexity and severity of the event) and shares these with the leadership. The report includes a brief summary of the event, actions taken and next steps, issues and challenges that required high level decision-making.

Leadership meeting

This meeting is chaired by the minister, the ED or anyone designated by authority. It is attended by all respective health directors, IMS staff, heads of responding partners and other relevant stakeholders. This is a forum for strategic communication among relevant stakeholders where critical decisions are taken. The IM and section leaders will provide situational awareness. Minutes of the meeting are shared regularly to monitor actions and documented properly in the PHEOC repository.

PHEOC communication channels

The PHEOC mailbox serves as a central mail repository. Any communication with the PHEOC and going out of the PHEOC should primarily be done through the PHEOC mailbox. PHEOC staff must have access to and should communicate via the PHEOC email. Other sources of information can include telephone calls, WhatsApp or any other communication channel. All incoming information will be recorded in the computerized messaging or paper-based system, screened and routed accordingly.

Situation Report

A situation report (SitRep) is produced regularly based on the complexity and severity of the event. Within the PHEOC the situation report is written in cooperation with all sections. An email distribution list needs to be formed containing all taskforce members, stakeholders, development partners and the media. The SitRep should also be disseminated widely to the IMS members, all levels of the health system delivery (regions and districts), partners, relevant private and government sectors, and displayed in the PHEOC.

Communication with Rapid Response Teams

It is critical that deployed RRT maintain regular communication with the PHEOC. The PHEOC must have a common operational picture of what is happening in the field. While deployed, the team needs to be equipped with basic communication facilities such as mobile phones (with airtime), internet, etc. to enable them to communicate and share information. RRTs must provide daily updates.

6.2. External communication

The PHEOC communicates externally with OMAs, international partners, non-governmental organizations (NGOs), the private sector and all relevant partners as well as the public through the Executive Director, in line with MoHSS communication policy.

However, communication with the media is done through the Public Relations Officer (PRO) in the Office of the Executive Director. All communication with technical experts and the professional audience (HCW, laboratories, etc.) is done by the PHEOC Manager or the Incident Manager (if or when appointed). Crucial preparatory work must be conducted in advance to effectively communicate about the PHE. SOPs including key timelines, need to be available and followed during a PHE, and all the communication outputs need to be monitored and evaluated regularly. External communication should be done through various forms such as websites, newsletters, press briefings, etc. with regular situation updates, including actions taken, and areas that need support.

Public communication

Communication with the general public is done through risk communication and community engagement (RCCE) in collaboration with the PRO's office, using the Communication Centre of the Ministry of Information and Communication Technology (MICT).

Important considerations when preparing communication for a Public Health Emergency:

- Building on the current communications structure, setting up a team with clearly defined roles and responsibilities that people can shift into once an emergency occurs;
- Media mapping and establishment of contacts of influential mass media outlets and journalists with the widest reach, scope, and appeal;
- Partner mapping and creating a contact list of key communications partners who will participate in the response and devising a communications system;
- Capacity building and designating key spokespersons and officials who will interact with the media and public;
- Developing SOPs for communications during a public health emergency with key timelines;
- Preparing preliminary statements on different possible emergencies and storing them in a retrievable format to ensure that initial information about the incident is swiftly and

accurately conveyed to the media and key stakeholders. These would include: Fact sheet, frequently asked questions and answers, important telephone numbers and contacts.

Key considerations during the Public Health Emergency:

- Posting the daily situation update on the MoHSS website, and its social media platforms;
- Holding regular press briefings on the situation with key media and stakeholders;
- Sharing key messages regularly with partners to ensure a Common Operating Picture (COP);
- Issuing press releases at key moments in the response: e.g. declaration of an outbreak, scaling up of support, and key control measures such as vaccination campaigns, and containment efforts and declaration at the end of the outbreak;
- Daily monitoring of news channels, including social media to spot any disinformation, misinformation or rumors circulating;
- Sensitization of key journalists and outlets on key prevention and other measures;
- Working with risk communications, health promotion and community engagement colleagues to disseminate key prevention and other measures through radio, social media, and other communications channels;
- Communicating with the public to inform them about the situation, control measures, and the associated risks;
- Using social media platforms to disseminate key information and dispel rumors in real-time, as well as to identify issues of concern.

After the public health emergency has ended, follow-up activities include:

- Evaluate media output in terms of press releases, briefings, interviews, and social media posts;
- Analyzing coverage in terms of alignment of messaging;
- Archiving useful documents for easy access next time;
- Conducting lessons learned regarding procedures and processes to see what went well and what can be improved the next time (After-Action Review);
- Continue building relationships in preparation for the next PHE.

7. Monitoring and evaluation

The planning and implementation of the monitoring and evaluation (M&E) activities will fall under the scope of the PHEOC Manager, with the support of all PHEOC functions and the overall goal to improve PHEOC operations and capabilities. PHEOC specific M&E activities should be based on the IHR Monitoring and Evaluation Framework (IHR MEF, 2018).

In the absence of public health events, the preparedness level will be evaluated regularly through the support of simulation exercises. The simulation exercises can be planned as discussion-based exercises (tabletop) or operations-based exercises (drills, functional exercises and field exercises). This activity should be repeated once a year if the PHEOC has not been activated for the calendar year.

Once a PHE occurs, it is crucial to conduct an Early Action Review (EAR) to assess the early response performance with the aim to improve the response. The EAR furthermore promotes the collaboration and coordination among key stakeholders during the early response phase, increasing the likelihood of an effective control. This is done using the "7-1-7 target" (see below) for detection, notification and response. It defines three timeliness metrics that can be used to assess and improve early detection and response systems:

- 7 days to detect a suspected public health threat;
- 1 day to notify a public health authority responsible for action; and
- 7 days to complete early response actions.

In case of a protracted PHE, an Intra-Action Review (IAR) should be conducted during an ongoing response. Following a simulation exercise or when an PHE is declared over and the PHEOC is deactivated, the performance of the PHEOC must be evaluated, through an After-Action Review (AAR). This evaluation will consider all relevant PHEOC functions. Input will be collected from PHEOC staff and other incident management staff regarding PHEOC support to the response.

Monitoring of the activities will be against set objectives using key performance indicators. The key performance indicators will be defined in the respective incident action plan. This process will identify key challenges that the PHEOC needs to improve to fully support the response operation. Results of the evaluation will inform the development of a corrective action plan

(CAP) to rectify weaknesses. The PHEOC Manager should ensure the development and implementation of the CAP, and reports to the supervisor on the implementation of the plan within an agreed timeframe.

8. Training

The PHEOC Manager, with the support of all PHEOC functions, will develop and conduct regular training activities permanent and surge staff of the PHEOC, in order to ensure that procedures and functions of the PHEOC are known and necessary skills are acquired. Simulation exercises will be conducted to ensure that an activation in the envisioned time schedule can be achieved.

Types of training to be conducted

- PHEOC SOPs specific trainings;
- Introduction to Public Health Emergency Management;
- Introduction to WHO Monitoring and Evaluation Framework and SimEx Manual;
- Rapid Response Teams Training;
- Any other relevant training for PHEOC staff.

Persons to be involved in the training

- Training should involve multi-disciplinary / multi-sectoral, including response partners;
- PHEOC routine staff;
- PHEOC surge staff;
- RRT;
- Visitors, e.g. students, colleagues from the regions.

Frequency of training sessions

Training sessions should be conducted regularly (at least twice a year) followed by a simulation exercise. Simulation Exercises are conducted to test skills and knowledge acquired, validate existing plans, procedures, and systems, reveal gaps and challenges and to improve organizational communication and coordination. Trainings can also be conducted based on identified or arising needs.

9. Other considerations

Response to PHEs must observe public health ethics and respect for human rights. PHEOC staff should observe these ethical principles at all times. More importantly, during PHE, it is crucial to protect vulnerable populations from Sexual Exploitation and Abuse (SEA) while promoting gender equity and human rights. Additionally, all staff members and responders should be protected from sexual harassment and there must be conducive mechanisms for reporting sexual harassments related issues.

Public health emergency management should equally consider people with disabilities, in terms of access and equity. It is important to include people with disabilities, e.g. in response teams. Furthermore, collected data must be inclusive of the different types of disabilities.

10. Glossary

All-hazards approach: An approach to the management of the entire spectrum of emergency risks and events is based on the recognition that there are common elements in the management of these risks.

Assisting agency: An agency or organization providing personnel, services, or other resources to the agency with lead responsibility for incident management.

Chain of command: A series of command, control, executive, or management positions in the hierarchical order of an authority.

Common Operating Picture: A single, continuously updated overview of an incident compiled throughout its life cycle from data shared between integrated systems for communication, information management, and intelligence and information sharing.

Concept of Operations: A section or statement in an agency emergency plan or EOC plan that identifies policies, roles, and responsibilities and how the structural or functional elements of the organization will work together to produce a coherent management response.

Disaster: A type of event which causes serious disruption to the functioning of a community or a society due to hazards interacting with conditions of vulnerability, exposure, and insufficient capacity to reduce risks or cope with consequences, leading to widespread human, material, economic and environmental losses, and impacts.

Emergency: A sudden and usually unforeseen event calls for immediate measures to minimize its adverse consequences.

Event: A manifestation of a disease or an occurrence that creates a potential for disease

Exercise: A form of practice, training, and evaluation of capabilities involving the description or simulation of an emergency, to which a described or simulated response is made based on agency emergency plans or contingency plans, and an EOC plan.

Incident Management System: An emergency management structure and set of protocols that provide an approach to guiding government agencies, the private sector, nongovernmental organizations, and other actors to work in a coordinated manner primarily to respond to and mitigate the effects of all types of emergencies.

PHEOC Plan: A document that describes the structure, functions, and standard operating procedures for operating a PHEOC and serves as the primary resource manual for PHEOC staff, containing samples of all necessary forms, role descriptions, concepts of operations, and standard operating.

Risk assessment: The process of determining those risks to be prioritized for risk management by the combination of risk identification, risk analysis, and evaluation of the level of risk against predetermined standards, targets, risks, or other criteria.

Surge capacity: The ability to draw on additional resources to sustain operations and increase capacity, usually for emergency response, as required.

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