

HOSPITAL RESILIENCE OPERATIONAL MATRIX

| | ROUTINE HOSPITAL OPERATIONS (BEFORE EMERGENCY AND/OR DISASTER) | | | DURING EMERGENCY AND/OR DISASTER | POST EMERGENCY AND/OR DISASTER |
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| | Risk Assessment & Planning | Risk Reduction (Prevention & Mitigation) | Preparedness | Emergency Response | Recovery (Early Recovery- short-term/ST, Rehabilitation- short-medium-term/MT, Reconstruction (medium-long-term/LT)) |
| OBJECTIVES | Identify potential hazard, vulnerabilities and prioritize risks that can disrupt normal hospital operations | Prevent new or increased risks and eliminate or mitigate existing ones and mainstream HEDRM in regular hospital operations | Develop capacities to respond to and recover from the impact of hazards | Manage actual risks to the hospital which cannot be effectively reduced | Return to normal hospital operations and build back better including learning lessons for continuous capacity development |
| Linkages with National Level (Policies, Guidelines and Strategies) | National coordination mechanisms, guidelines, strategies, and standards for health system strengthening and health security (e.g. Ministry of Health, Disaster Management Agency, Environmental Protection Agency, National Building Code / Fire Safety, Ministry of Finance, Planning, Economic Development Agency, etc.) | | | | |
| KEY OUTCOMES: SERVICES | Save lives by maintaining <u>function(s)</u> and providing <u>quality</u> (safe, effective, patient-centered, timely, efficient, equitable) and <u>continuous</u> critical and essential services, amidst the crises, while leaving <u>no one behind</u> . | | | | |
| HARD RESILIENCE | SPACE including structural (constructive) and non-structural (infrastructural) elements | Implement Structural Mitigation Interventions (e.g. Retrofitting, Fire Wall, Flood Barriers, follow design codes and safe building codes requirements for new facilities) | Identify and test key operational areas for hospital readiness and response (e.g. Evacuation point, safety area, patient reception and triage, isolation, decontamination, space expansion, alternative care sites, Hospital EOC, Logistics) | Conduct rapid damage assessment | Cleaning and repair of damage facilities (ST-MT-LT) |
| | | Implement Non-Structural Mitigation Interventions (Infrastructural and Backup Systems) (e.g. Protection of critical hospital equipment including quality and functionality, facilities and lifelines - power/water/communication/sewage/HVAC/fuel/gas/hazardous waste management/fire protection including alternate sources) | | Flexibility to expand, use and repurpose available spaces | Restoration of critical (Electrical, Telecom, Water, Waste, medical gases, HVAC) systems (ST-MT) |
| | | Infrastructural Accessibility Assessment and Risk Reduction Interventions for People with Disabilities (e.g., inclusive alarms, rails, non-slippery stairs, ramps) | | | Construction of new Safe + Green Hospitals per building codes (LT) |
| | Hospital Emergency and Disaster Strategic Risk Assessment | Integration of DRM in Hospital accreditation/re accreditation system and licensing (and relicensing) for public and private hospital operations | Monitor Early Warning Information (e.g. Metrological Services, DM Agencies, Public Health Agency) | Return of repurpose space to normal function and use (ST-MT) | Validate, review and document early warning information including actions taken |
| SOFT RESILIENCE | Hazard and Vulnerability Assessment | Strengthen routine emergency services by the Emergency Unit and its coordination with other hospital departments (e.g. Management of trauma, communicable disease, routine triage) | Establish emergency preparedness program that includes annual work plan, resources, targets, and budget (e.g. risk informed response and recovery planning, SOPs, training program for response, resourcing, external coordination, partnership, simulation exercises) | Activation of all hospital response plans and SOPs according to established triggers (including operational mechanism of response coordination, service continuity plans, MCM/MFM) | Scaling down of the response and activation of Recovery Plan |
| | | Develop risk informed business development plans, programs and strategies including in budgetary processes | Mainstream disability, equity, and inclusion in preparedness | Develop, evaluate, update incident action plan to address response activities leaving no one left behind | |
| | | Establish multi-disciplinary HEDRM committee with clear roles and responsibilities | Develop Service Continuity Plan and SOPs (e.g. planning team, identification of critical services and functions, identification alternate care sites and delivery, information and data backup system) | Infection Prevention and Control (IPC) and surveillance Referral pathways (internal and external) | |
| | Capacities Assessment for routine and emergency operations | Promote Smart (Safe + Green) Hospital Interventions Plans, strategies and coordination mechanism for decarbonization of routine hospital operations (e.g. Waste management, renewable energy, purchasing sustainable products) | As part of the All-Hazards Hospitals Response Plan , Establish clear roles and responsibilities of the Hospitals HIMT and EOC | | |
| | | Strengthening of hospital support services by establishing updated operational procedures and capacity development plans for routine operations (e.g. maintenance and engineering, dietary, radiology, laboratory, security, administration, central supply, pharmacy, housekeeping, etc.) | Develop Communicable Disease Outbreak Plan (e.g. Hospital surveillance system, isolation, triage, case management, public health coordination, IPC, reporting) | | |
| | Leadership and Management | Strengthening of capacity development plans in routine hospital services including leadership (e.g. Human Resources, Supply Chain Management, Financial Management, DRM, Clinical Management, Information | Develop Mass Casualty Management Plan (e.g. patient reception and triage, casualty care, critical care, surgery, surge capacity) | Conduct Rapid Assessment of Response Needs | Assess Damage and Loss (MT/LT) |
| | | | Develop Mass Fatality Management Plan (e.g. Coordination, identification, morgue, legal issues, return of bodies to family members. PPE, etc) | | |

AFTER ACTION REVIEW (AAR) AND CORRECTIVE ACTION PLANNING
(Documentation of lessons learned and improvements)

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| | | Risk Communication and Community Engagement | | |
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| SYSTEMS Leadership and Coordination, Information Management, Risk Communication and Community Engagement including on Monitoring & Evaluation, Accountability and Learning | Coordination mechanism with local authorities Assessment of community needs including special consideration for vulnerable populations | Establish linkages with local media and engage in routine public relations activities (i.e. Corporate Social Responsibility) Ensure accessible information and communication for people with disabilities, indigenous people, and other groups | | |
| | | Reinforce safety messages through posters, information campaign, flyers, etc. (e.g. fire safety, IPC, chemical safety, communicable disease) | Establish community outreach programs to support preparedness of local communities including engaging vulnerable groups and ensure community is aware of alternate plans (e.g. training, exercises, community DRM planning) | Implement Crisis Communication Strategies (e.g. Prepare press statements by the Public Information Officer and coordinate media interviews, issue safety messages both internal and external, reporting and sharing information through IMS, 1. Communication within the hospital (internal) 2. Communication with patients and community (external hospital communication mechanisms) 3. Communication and coordination with other hospitals, networks, health systems actors, national level |
| | | Ensure that appropriate support services and understandable information for populations with special needs (e.g. PWD, indigenous people) | Develop, test and update risk communication messages for various target groups | Inform communities on alternate service platforms during emergencies |
| | | Establish a robust hospital information management system for routine hospital operations in which data sets can be used for DRM planning, emergency response and recovery, and M&E | Reinforce preparedness to operationalize emergency systems (e.g. training, resources, coordination, partnership with other hospitals, strengthen linkages with external stakeholders, simulation exercises, evidence based research to improve operational procedures) | Early Warning System (e.g. Local EOC, metrological department, disease surveillance system, decision making procedures to activate response plan, communicate and sharing of EW information) |
| | | | | Hospital Incident Management System/Team (HIMS/T) (e.g. Roles and responsibilities of Incident Management Team, job actions sheets, resource mobilization procedures, incident action planning, internal/external coordination, communication, reporting, documentation, continuity of essential services, safety and security, staff well-being) |
| | | | | Activate stand down procedure of Hospital response operations (e.g. Identify triggers for decision making, deactivation of Hospital EOC, consolidate information and documentation of response, conduct debriefing, plan for After Action Review) |
| | | | | Activate Hospital Emergency Operations Center (EOC) (e.g. activation/deactivation, location and alternate arrangements, security, set up, vertical and horizontal linkages) |
| | | | | Ability to identify and address workflow and operations bottlenecks (e.g. ED overcrowding) Innovation in service delivery Feedback mechanisms and evaluation of response and recovery interventions Identify critical indicators and data sets to facilitate decision making for response & recovery (e.g. bed capacity, occupancy rate, maps, HR on duty, staff contacts list, medical supplies/equipment, oxygen, water, fuel, chemicals, etc.) |
| | | STUFF Finance, logistics, and supply chain management, and sustainability | Stock and inventory management of emergency medicines and supplies Consider Needs-based allocation/distribution strategy Backup/alternative/duplicate systems for supply management | Timely and flexible resource mobilization enabling agile response operations |
| | | | Establish emergency procurement procedures including budget | Conduct Rapid Needs Assessment |
| | | | Develop Emergency Supply List Establish Vendor and Service Agreements | Needs-based and Risk-adjusted standards for allocation, distribution, and use of supplies and medicines Activation of Aid and Vendor Agreements |
| | | | Secure emergency flexible and sustainable finance mechanism | Mitigating direct and indirect costs of recovery (including repairs, reconstruction) |
| | | | Develop staff competencies of application of response protocols, plans and roles (e.g. staff training and exercises including participating in similar community activities as part of the wider response system) | Support for safety, security, health and welfare of staff and families (e.g. rest facilities, food, monitoring of stress/ burnout, protective measures like PPEs, immunization, insurance, security/safety) |
| STAFF Human Resources | | Integration of HEDRM in HR development strategy, plans, and programs (e.g. mapping of staff capacity and skills, inclusion of DRM roles in staff job description, orientation of new staff, updated staff directory) | Establish system to mobilize Human Resource for Response (e.g. mapping of Availability and competencies, clear tasks and roles, updated staff directory, mobilization procedures, recall of off duty staff, support like incentives, renumeration, rest, accreditation volunteers) | Mental health and psychosocial support (e.g. stress debriefing, consultation, monitoring and reporting of warning signs) |
| | | | Financial and non-financial incentives (e.g. leave, insurance/benefit claims) | |