Training Manual on
"Climate Informed Hospital Emergency Preparedness and Response Plan"

September 2023

Preface

In 2011, the Directorate General of Health Services (DGHS) developed a Hospital Emergency Preparedness and Response Plan to provide guidance to hospital managers and staff on how to respond to crises effectively. However, a decade later, the Institute of Epidemiology Disease Control and Research (IEDCR) updated the plan in 2022 to address contemporary challenges and needs, including the impact of climate change. The updated plan aims to ensure the continuity of essential services, coordinated hospital operations, clear communication, adaptation to increased demands, efficient use of scarce resources, and a safe environment for healthcare workers. However, during the updating of the plan, it was discovered that hospital managers were not aware of the plan, and most hospitals did not have their emergency management plans. Furthermore, the 2011 plan was not well-communicated and disseminated to hospital managers.

The lack of awareness among hospital managers and the absence of emergency management plans hinders the successful implementation of the plan. In the coming years, the climate condition will worsen and thus pressure will be increased on the public health system. To reduce the pressure, increased knowledge is needed along with improved management capacity. For that reason, the understanding, knowledge, and competency of Bangladeshi health professionals and workers need to be increased. Therefore, there is a need to orient and disseminate the newly updated Climate Informed Hospital Emergency Preparedness and Response Plan to hospital managers and staff.

Taking into consideration Bangladesh Center for Communication Programs (BCCP) has been awarded a project by the World Health Organization (WHO) for development of training manual and conduction of training courses on climate informed hospital emergency preparedness and response plan for the health care staff from eight divisions.

Accordingly training manuals have been developed through a workshop with WHO, IEDCR and concern professional of DGHS and others stakeholder. Objective of the manual is to enhance the knowledge and awareness of the updated climate informed hospital emergency preparedness and response plan among healthcare officials, hospital managers, and staff, enable the implementation of the plan, and promote a more coordinated and effective response to crises in the healthcare sector.

The manual has been developed using various participatory training methodologies including Review Discussion and Sharing (RDS). In this training manual emphasis is also given to reduce the barriers caused due to discrimination and gender bias. Throughout the manual gender-neutral terminology has been used to make the manual gender sensitive.

We hope that this training manual will help to enhance the capacity of health professionals of DGHS on climate informed hospital emergency preparedness and response plan so that they enable the implementation of the plan and promote a more coordinated and effective response to crises in the healthcare sector.

Sessions of Training Manual on Climate Informed Hospital Emergency Preparedness and Response Plan

Session- 08 : Continuity of essential services of the hospital and emergency response plan

- Actions of continuity of essential services
- Tools of continuity of essential services
- Practice session on tools

Session- 09 : Human resources of the hospital and emergency response plan

- Actions of human resources of emergency response plan
- Tools of human resources of emergency response plan
- Practice session tools

Session- 10 : Logistics and supply management of the hospital and emergency response plan

- Actions of logistics and supply management
- Tools of logistics and supply management
- Practice session on tools of logistics and supply management

Session- 11 : Post disaster recovery of the hospital and emergency response plan

- Actions of post disaster recovery of emergency response plan
- Tools of post disaster recovery of emergency response plan
- Practice session tools of post disaster recovery

Session- 12 : Beneficiary awareness and engagements in response to Climate Change through Client Provider Interaction and Counseling

- Communication & Interpersonal communication
- Characteristics of interpersonal communication
- Considerations in improving interpersonal communication skills

Session- 13 : Process and steps for changing human behavior to respond for adaptation and mitigation of Climate Change.

- Stages of behavior change
- Communication barriers and how to overcome them

Session- 14 : Vulnerability Analysis of Local Health Care Facilities

- Developing a hospital emergency response plan
- Risk and Hazards
- Scoring criteria of probability and impact of hazards
- Vulnerability analysis tools

Session- 15 : Practice session on Vulnerability Analysis of Local Health Care Facilities

Session- 16 : Real Scenario based Practice session on Climate Informed Hospital Emergency and Response Plan

Acronyms & abbreviations

BCCP	:	Bangladesh Center for Communication Programs
BMD	:	Bangladesh Meteorological Department
BBS	:	Bangladesh Bureau of Statistics
CC	:	Climate Change
CCHPU	:	Climate Change and Health Promotion Unit
CSD	:	Climate Sensitive Disease
DGHS	:	Directorate General of Health Services
DGFP	:	Directorate General of Family Planning
FFWC	:	Flood Forecasting and Warning Centre
IC	:	Incident Commander
ICG	:	Incident Command Group
ICS	:	Incident Command System
IPCCC	:	Inter-government Panel on Climate Change Convention
MCI	:	Mass Casualty Incidents
MoHFW	:	Ministry of Health and Family Welfare
RDS	:	Review Discussion and Sharing
SRDI	:	Soil Resource Development Institute
UN	:	United Nations
VIPP	:	Visualization in participatory Program
WHO	:	World Health Organization

TRAINING OF TAINER'S (TOT) ON CLIIMATE RESPONSE HOSPITAL EMERGENCY PREPAREDNESS AND RESPONSE PLAN

Tentative Schedule

TIME	DAY-1	DAY-2	DAY-3
08:30 AM 09:00 AM		R E F L E C T I O N S	
09:00 AM 09:30 AM 09:30 AM 10:30 AM	OPENING OF THE TOT EXPECTATION OBJECTIVE OF THE TOT	TRIAGE OF THE HOSPITAL EMERGENCY RESPONSE PLAN, SURGE CAPACITY OF THE HOSPITAL EMERGENCY RESPONSE PLAN PRACTICE SESSION	VULNERABILITY ANALYSIS OF LOCAL HEALTH CARE FACILITIES
10:30 AM 11:00 AM	T E A B R E A K		
11:00 AM 12:00 AM	CLIMATE CHANGE AND BANGLADESH SENARIO, INTRODUCTION TO CLIMATE INFORMED EMERGENCY HOSPITAL PEPEAREDNESS AND RESONSE PLAN	CONTINUITY OF ESSTIONAL SERVICES, HUMAN RESOURSES OF THE HOSPITAL EMERGENCY RESPONSE PLAN PRACTICE SESSION	PRACTICE SESSION ON VULNERABILITY ANALYSIS OF LOCAL HEALTH CARE FACILITIES
12:00 PM 01:15 PM	COMMAND AND COTROL OF THE HOSPITAL EMERGENCY RESPONSE PLAN	LOGISTIC AND SUPPLY MANAGEMNT OF THE HOSPITAL EMERGENCY RESPONSE PLAN PRACTICE SESSION	REAL SENARIO BASED PRACTICE SESSION ON PREPARING CLIMATE INFORMED HOSPITAL EMERGECY PREPARDNESS AND RESPONSE PLAN
01:15 PM 02:15 PM	L U N C H A N D P R A Y E R B R E A K		
02:15 PM 03:30 PM	COMMUNICATION OF THE HOSPITAL EMERGENCY RESPONSE PLAN PRACTICE SESSION	POST DISEASTER RECOVERY OF THE HOSPITAL EMERGENCY RESPONSE PLAN	PLANNERY PRESENTATION ON CLIMATE INFORMED HOSPITAL EMERGECY PREPARDNESS AND RESPONSE PLAN
03:30 PM 03:45 PM	T E A B R E A K		
03:45 PM 04:45 PM	SAFTEY AND SECURITY OF THE HOSPITAL AND RESPONSE PLAN PRACTICE SESSION	CLIENT PROVIDER INTERACTION, COUNSELLING AND STEPS TO BEHAVIOR CHANGE	CLOSING OF THE TOT

TRAINING ON CLIIMATE INFORMED HOSPITAL EMERGENCY PREPAREDNESS AND RESPONSE PLAN

Tentative Schedule

TIME	DAY-1	DAY-2
08:30 AM 09:00 AM		R E F L E C T I O N S
09:00 AM 09:30 AM	OPENING OF THE TRANING	POST DISEASTER RECOVERY OF THE HOSPITAL EMERGENCY RESPONSE PLAN
09:30 AM 10:30 AM	EXPECTATION OBJECTIVE OF THE TRAINING	CLIENT PROVIDER INTERACTION, COUNSELLING AND STEPS TO BEHAVIOR CHANGE
10:30 AM 11:00 AM	T E A B R E A K	
11:00 AM 12:00 AM	CLIMATE CHANGE AND BANGLADESH SENARIO, INTRODUCTION TO CLIMATE INFORMED EMERGENCY HOSPITAL PEPEAREDNESS AND RESONSE PLAN	VULNERABILITY ANALYSIS OF LOCAL HEALTH CARE FACILITIES
12:00 PM 01:15 PM	COMMAND AND COTROL OF THE HOSPITAL EMERGENCY RESPONSE PLAN, COMMUNICATION OF THE HOSPITAL EMERGENCY RESPONSE PLAN SAFTEY AND SECURITY OF THE HOSPITAL EMERGENCY REPSONSE PLAN PRACTICE SESSION	PRACTICE SESSION ON VULNERABILITY ANALYSIS OF LOCAL HEALTH CARE FACILITIES REAL SENARIO BASED PRACTICE SESSION ON PREPARING CLIMATE INFORMED HOSPITAL EMERGECY PREPARDNESS AND RESPONSE PLAN
01:15 PM 02:15 PM	L U N C H A N D P R A Y E R B R E A K	
02:15 PM 03:30 PM	TRIAGE OF THE HOSPITAL EMERGENCY RESPONSE PLAN, SURGE CAPACITY OF THE HOSPITAL EMERGENCY RESPONSE PLAN, CONTINUITY OF ESSTIONAL SERVICES OF THE HOSPITAL EMERGENCY RESPONSE PLAN, PRACTICE SESSION	PLANNERY PRESENTATION ON CLIMATE INFORMED HOSPITAL EMERGECY PREPARDNESS AND RESPONSE PLAN
03:30 PM 03:45 PM	T E A B R E A K	
03:45 PM 04:45 PM	HUMAN RESOURSES OF THE HOSPITAL EMERGENCY RESPONSE PLAN LOGISTIC AND SUPPLY MANAGEMNT OF THE HOSPITAL EMERGENCY RESPONSE PLAN	CLOSING OF THE TRANING

Session - 01: Climate Change and Bangladesh Scenario

Time: 60 minutes

Objectives:

After completion of the session participants will be able to explain -

- Changes in Temperature, Rainfall & Humidity due to climate change.
- Cyclone, tornado, water surge, flood, sea level rise, salinity in land and water due to climate change.
- Vector bone and climate sensitive diseases due to climate change.

Steps, Contents, Time, Methods and Materials:

Steps	Contents	Time	Methods/techniques	Materials
1.	Changes in temperature, rainfall & humidity	10 m	Brain storming, discussion and visualized presentation	Flip sheet, marker, VIPP board, multimedia
2.	Cyclone, tornado, water surge, and flood	10 m	Discussion and visualized presentation	Flip sheet, marker, VIPP board, multimedia
3.	Sea level rise, salinity in land and water	10 m	Discussion and visualized presentation	Flip sheet, marker, VIPP board, multimedia
4.	Salinity in land and water, River erosion and land slide, Drought	10 m	Brain storming, discussion and visualized presentation	Flip sheet, marker, VIPP board, multimedia
5.	Vector bone and climate sensitive diseases.	15 m	Discussion and visualized presentation	Flip sheet, marker, VIPP board, multimedia
3.	Sum up	05 m	Q & A and discussion	Interaction with the participants

Process:

- Welcome the participants and start the session. Tell participants we have to know the climate change and Bangladesh scenario before we know the climate informed emergency hospital preparedness and response plan.

- Ask the participants to share their ideas about changes in temperature, rainfall & humidity and write down their answer in the flipchart.

- Visualize the presentations and discuss accordingly.

- Ask the participants to know their ideas about cyclone, water surge, flood and sea level rise.

- Ask the participants to know their ideas about salinity in land and water.

- Ask the participants to know their ideas about river erosion.

- Ask the participants to know their ideas about salinity in land and water.

- Visualize the presentations and discuss accordingly.

- Ask if any question they have and give answer.

- Summarize and conclude the session.

Changes in pattern of temperature, rainfall and & humidity effect:

The rainfall of Bangladesh varies from 1400 mm in the west to more than 4400 mm in the east. The average temperature of the country varies from 17°C to 21°C in winter and from 27°C to 30°C in summer. In some places, in the western part of Bangladesh, the maximum temperature in summer rises up to 40°C or more. The climate models projected that temperature of Bangladesh would rise 1.0°C by 2030, 1.4°C by 2050, and 2.4°C by the end of this century. The models also predict 3.8% increase of rainfall by 2030, 5.6% by 2050, and 9.7% by the end of 21st century. The impacts of more variable precipitation and extreme weather events are already felt in Bangladesh [1].

Under a high emissions scenario, mean annual temperature is projected to rise by about 4.8°C on average from 1990 to 2100. If emissions decrease rapidly, the temperature rise is limited to about 1.4°C.

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[1] Natural Resources Defense Council, Inc.

DAYS WITH EXTREME RAINFALL ('FLOOD RISK')
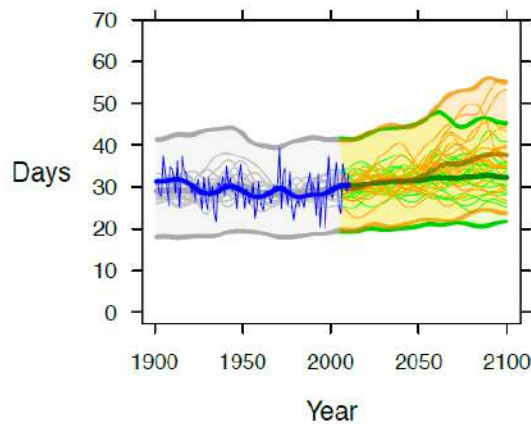
Under a high emissions scenario, the number of days with very heavy precipitation (20 mm or more) could increase by almost 10 days on average from 1990 to 2100, increasing the risk of floods. Some models indicate increases outside the range of historical variability, implying even

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Effect of Climate change

Unusual rain: Climate change to blame

Records show, from 2010 until 2014, the country experienced around 44,000mm of rainfall during June, July and August. This year, the Met office recorded 19,475mm of rain in June, 29,281mm in July and 15, 231mm in August – total 63, 987mm over the three months. With an extended monsoon this year, Met office forecast more rain in September.

Cyclone, tornado, storm surge, and flood

Bangladesh is one of the most disaster-prone countries in the world. Almost every year, the country experiences some sorts of disasters, such as tropical cyclones, tornados, floods, and droughts, causing heavy losses of lives and properties. The projected high rainfall during monsoon would increase flow of rivers in Bangladesh [9].

Cyclone, Storm surge, and Flood

Recent Flood in Sylhet

The floods have damaged 75,000 hectares (185,000 acres) of paddy and 300,000 hectares (741,000 acres) of other crops, including maize, jute and vegetables, agriculture ministry official Humayun Kabir said. The dead included 21 in the northeastern Sylhet administrative division, 18 in the northcentral Mymensingh division and three in the northern Rangpur division, the DGHS said[10].

Fatema Begum, a mother of three in the worst-hit Sunamganj district, said the floods had washed away everything. "There is not even a trace," she said of her small thatched hut. "We don't even have a second pair of clothes."

Sea Level Rise

Sea level rise already has affected Bangladesh by land erosion, salinity intrusion and loss in biodiversity. Its potential threats are coming even strongly in the future. Sea level rise will cause riverbank erosion, salinity intrusion, flood, damage to infrastructures, crop failure, fisheries destruction, loss of biodiversity, etc. along this coast. Sea level rise of 1 m will inundate 17.5% of the country's vast coastal area and flood plain zone. It will affect SDG, causing environmental refugees[2].

Sea Level Rise

Scientists of the Inter-government Panel on Climate Change Convention (IPCCC) have predicted that a 45 centimeters rise in sea level may submerge around 11 per cent of the total land mass of Bangladesh, creating 5.5 million refugees. This will put the food security, health, communication, infrastructure and economy of the nation at grave risk.

Sea Level Rise

bdnews24.com
Bangladesh's First Internet Newspaper

Rough sea, high tide makes parts of Cox's Bazar beach vulnerable
13 August 2022, 10:24 PM

Some parts of Laboni and Sugondha points at Cox's Bazar beach are on the verge of being completely wiped off as raise of sea leveland high tides, caused by a low-pressure system, have been wreaking havoc on the longest naturally formed sea beach in the world.

Increase salinity in land and water

A comparative study between Soil Salinity map of SRDI for the period of 1973 and 1997 shows salinity intrusion in soil is much higher than water salinity. It shows that soil of Jessore, Magura, Narail, Faridpur, Gopalgonj and Jhalokati was newly salinized in 24 years of time expansion. A one-meter sea level rise will expand the soil and water salinity area at a faster rate[3].

Vector borne and climate sensitive diseases

Vector-borne
Malaria
Dengue fever
Rocky Mountain spotted fever
Encephalitis
Leishmaniasis
Onchoceriasis (river blindness)

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[3] Md. Golam Mahabub Sarwar, Lund University, Sweden, mgmsarwar@gmail.com

Vector borne and climate sensitive diseases

Water and Foodborne
Cholera
Diarrhea
Dysentery
Hepatitis A
Other non-cholera Vibrio spp..(i.e., V. vulnificus, V. parahaemolyticus)
Schistosomiasis
Giardiasis
Cryptosporidiosis

Vector borne and climate sensitive diseases

Water and Foodborne
Human enteric viruses (Enteroviruses,.Norwalk and Norwalk-like viruses)
Campylobacteriosis
Cyclospora cayetanensis
Salmonella enteritidis

Vector borne and climate sensitive diseases

Airborne (and others)
Meningococcal meningitis
Coccidioidomycosis
Respiratory syncytial virus (colds)
Influenza
The common cold
Pneumonia
(Source: Health, Climate, and Infectious Disease: A Global Perspective, AAM, www.asmusa.org)

Reading Materials/for more information

1. https://www.climatelinks.org/sites/default/files/asset/document/Bangladesh%20Climate%20Info%20Fact%20Sheet_FINAL.pdf
2. https://en.banglapedia.org/index.php/Climate
3. https://www.climatestotravel.com/climate/bangladesh
4. https://www.lumes.lu.se/sites/lumes.lu.se/files/golam_sarwar.pdf
5. https://www.climaterealityproject.org/blog/how-climate-crisis-impacting-bangladesh
6. http://www.old.bmet.gov.bd/BMET/resources/Static%20PDF%20and%20DOC/publication/Brief%20on%20Climate%20Change-%20Impact%20on%20Bangladesh.pdf

Session- 02: Introduction to climate informed hospital emergency preparedness and response plan

Time: 45 Minutes

Objectives:

After completion of the session participants will be able to:

- Explain the concept of climate informed hospital emergency preparedness and response plan, advantages of climate informed hospital emergency preparedness and response plan.
- Goals, objectives, and principles of hospital emergency response plan.

Steps, Contents, Time, Methods and Materials:

Steps	Contents	Time	Methods/techniques	Materials
1.	Concept of climate informed hospital emergency preparedness and response plan	10 m	Brain storming, discussion and Visualized presentation	Flip sheet, marker, VIPP board, multimedia
2.	Advantages of climate informed hospital emergency preparedness and response plan	10 m	Brain storming, discussion and Visualized presentation	Flip sheet, marker, VIPP board, multimedia
3.	Goals, objectives, and principles of hospital emergency response plan	20 m	Brain storming, discussion and Visualized presentation	Flip sheet, marker, VIPP board, multimedia
3.	Sum up	05 m	Q & A and discussion	Interaction with the participants

Process:

- Greet the participants and invite them to the session to participate.

- Ask the participants to share their ideas/thoughts about climate informed hospital emergency preparedness and response plan.

- Discuss with the participants by sharing the power point presentation on concept of climate informed hospital emergency preparedness and response plan.

- Divide participants into four groups and tell them to sit in four tables and marked the marked the groups like A, B, C and D etc. Distribute VIPP cards to four tables.

- Ask the participants to write down at least 6-8 ideas in VIPP cards about the advantages of climate informed hospital emergency preparedness and response plan give them 5-6 minutes to complete the group work.

- Tell participants to present their group in the plenary session.

- After their presentation discuss with the participants by sharing the power point presentation on advantages of climate informed hospital emergency preparedness and response plan.

- Tell participants to share their ideas/thoughts about goals, objectives, and principles of hospital emergency response plan.

- Discuss with the participants by sharing the power point presentation on Goals, objectives, and principles of hospital emergency response plan.

- Ask if any question they have and give answer.

- Summarize and conclude the session by giving thanks to the participants for active participants.

Concept of climate response hospital emergency preparedness and response plan:

Hospitals play a critical role in health care infrastructure. Hospitals have a primary responsibility of providing treatment to preventing disease, saving lives; they also provide 24x7 emergency healthcare service and hence it is perceived as a vital resource for diagnosis, treatment, and follow-up for both physical and psychological healthcare. Hospitals have to provide emergency health care even during the disaster.

Concept of climate response hospital emergency preparedness and response plan:

Disaster for a hospital is "a temporary lack of resources which is caused due to sudden influx of unexpected patient load". To find out the constituents of a disaster or potential incident, the hospital needs to identify its normal capacity to understand its strength and could look for the additional resources which need to be included in disaster plan.

Advantages of climate response hospital emergency preparedness and response plan:

Hospital's emergency preparedness and response plan provides the opportunity to plan, prepare and enable a rational response during disasters/ mass casualty incidents (MCI). Disasters and mass casualties can overwhelm the hospitals resources, staff, space and or supplies. Lack of any tangible plan can cause a situation of no command, many leaders, and no coordinated effort to solve the problem.

Advantages of climate response hospital emergency preparedness and response plan:

Hospital planning in Bangladesh has not focused on preparedness in case of disasters and MCI till now. There is an urgent need to increase the preparedness of hospitals in mass casualties. The hospitals must expand their focus to include both internal hospitals planning as well as regional plan for disasters and mass casualties. WHO Bangladesh 1st introduced climate informed hospital emergency preparedness and response plan in 2011 which updated in 2022.

Goal

The aim of a climate informed hospital emergency preparedness and response plan is to provide prompt and effective medical care to the maximum possible, to minimize morbidity and mortality resulting from disaster.

Goal

In case of MCI away from the hospital, which is not affecting the hospital, the further goal of the plan is to control a large number of patients and manage the resulting problems in an organized manner by:

- enhancing the capacities of admission and treatment.
- treating the patients based on the rules of individual management, despite there being a greater number of patients.
- ensuring proper ongoing treatment for all patients who were already present in the hospital.
- smooth handling of all additional tasks caused by such an incident.

providing medications, medical consultation, infusions, dressing material and any other necessary medical equipment.

Goal:

In case of incidents affecting the hospital itself the further goals of the plan would be: To protect life, environment, and property inside the hospital from any further damage by

- putting into effect, the preparedness measures.
- appropriate actions of the staff who must know their tasks in such a situation.
- soliciting help from outside in an optimal way.
- re-establishing as quickly as possible an orderly situation in the hospital, enabling a return to normal working conditions.

Objectives:

The main objective of a climate informed hospital emergency preparedness and response plan is to prepare institutional staff and resources for effective performance in different emergency situations. The climate informed hospital emergency preparedness and response plans not only address the mass casualties which may result from MCI that has occurred away from the hospital but also addresses the situation where the hospital itself has been affected by a disaster – fire, explosion, flooding or earthquake.

Principles:

The major principles (characteristics) of a hospital emergency preparedness Plan are presented as follows:

- Predictable: The plan should have a predictable chain of management.

- Simple: The plan should be simple and operationally feasible.

- Flexible: The plan should be executable for various forms and dimensions of different disasters (Plan should have organizational charts).

- Concise: The plan should specify various roles, responsibilities, work relationships of administrative and technical groups (Clear definition of authority).

- Comprehensive: It must be comprehensive enough to look at the network of various other health care facilities along with formulation of an inter-hospital transfer policy in the event of a disaster (Compatible with various hospitals).

Principles:

- Adaptable: Although the disaster plan is intended to provide standard procedures which may be followed with little thought, it is not complete if there is no space for adaptability.

- Anticipatory: All hospital plans need to be made considering the worst-case scenarios.

- Part of a Regional Health Plan in Disasters: A hospital cannot be a lone entity making its plans in isolation. The hospital plans must be integrated with the regional plan for proper implementation.

Reading Materials/for more information

1. https://policycommons.net/artifacts/562377/hospital-preparedness-checklist-for-pandemic-influenza/1540433/
2. https://www.cambridge.org/core/journals/disaster-medicine-and-public-health-preparedness/article/abs/checklist-for-hospital-pandemic-preparedness-a-world-health-organization-innovation-with-future-application/A2B90E541FC0B9C837EF8DF0F3AC5299
3. https://www.paho.org/en/topics/health-emergency-and-disaster-preparedness
4. https://www.preventionweb.net/files/10464_NPmeetingAstanaWHOPPT.pdf

Session- 03: Command and Control of the hospital and emergency response plan

Time: 60 minutes

Objectives:

After completion of the session participants will be able to:

- Explain the nine components of hospital and emergency response plan.
- Importance of command and control of hospital and emergency response plan.
- Explain actions of the command and control of hospital and emergency response plan.
- Explain and practice on tools of the command and control of hospital and emergency response plan.

Steps, Contents, Time, Methods and Materials:

Steps	Contents	Time	Methods/techniques	Materials
1.	9 components of hospital and emergency response plan	10 m	Brain storming, discussion and visualized presentation	Flip sheet, marker, VIPP board, multimedia
2.	Importance of command and control	10 m	Brain storming, discussion and visualized presentation	Flip sheet, marker, VIPP board, multimedia
3.	Actions of the command and control	15 m	Brain storming, discussion and visualized presentation, role play	Flip sheet, marker, VIPP board, multimedia
4.	Explain and practice on tools of the command and control	20 m	Brain storming, discussion and Visualized presentation	vulnerability analysis tools flip sheet, marker,
5.	Sum up	05 m	Q & A and discussion	Interaction with the participants

Process:

- Greet the participants and invite them to the session to participate.
- Discuss with the participants by sharing the power point presentation on nine important component of climate response hospital emergency preparedness and response plan. Tell participants these are important component of emergency preparedness and response plan
- Tell participants command and control is the first component of hospital and emergency response plan. Ask participants to share their ideas/thoughts about the important of command and control of hospital emergency response plan
- Discuss with participants about importance of command and control of hospital emergency response plan showing power point presentation
- Discuss with participants about actions of command and control of hospital emergency response plan showing power point presentation
- Discuss and explain with the participants about tools of command and control
- Divide participants into four groups and provide them tools of command and control and tell them to write down output against each action's points.
- Invite participants to present their group work in to planery
- Ask if any question they have and give answer.
- Summarize and conclude the session by giving thanks to the participants for active participants.

Components of the hospital and emergency response plan

The plan is structured according to nine key components, each with a list of priority actions. These nine components are:

1. Command and Control
2. Communication
3. Safety and Security
4. Triage
5. Surge Capacity
6. Continuity of Essential Services
7. Human Resources
8. Logistics and Supply Management
9. Post Disaster Recovery
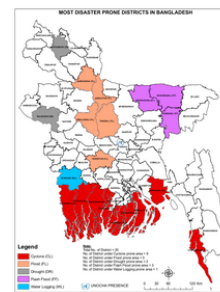
Hospitals experiencing an excessive demand for healthcare services due to a critical event are strongly encouraged to be prepared to implement each action effectively and as soon as it is required.

Command and Control

Command and control are the 1st component of the hospital and emergency response plan.

A well-functioning command and control system is essential for effective hospital emergency management operations. Some actions are recommended to establish a proper command and control system in the place.

Action-1:

Activate as quickly as possible the hospital incident command group (ICG) or establish an ad hoc ICG, i.e., a supervisory body responsible for directing the hospital-based emergency management operations.

Organizational structure of incident command system (ICS)
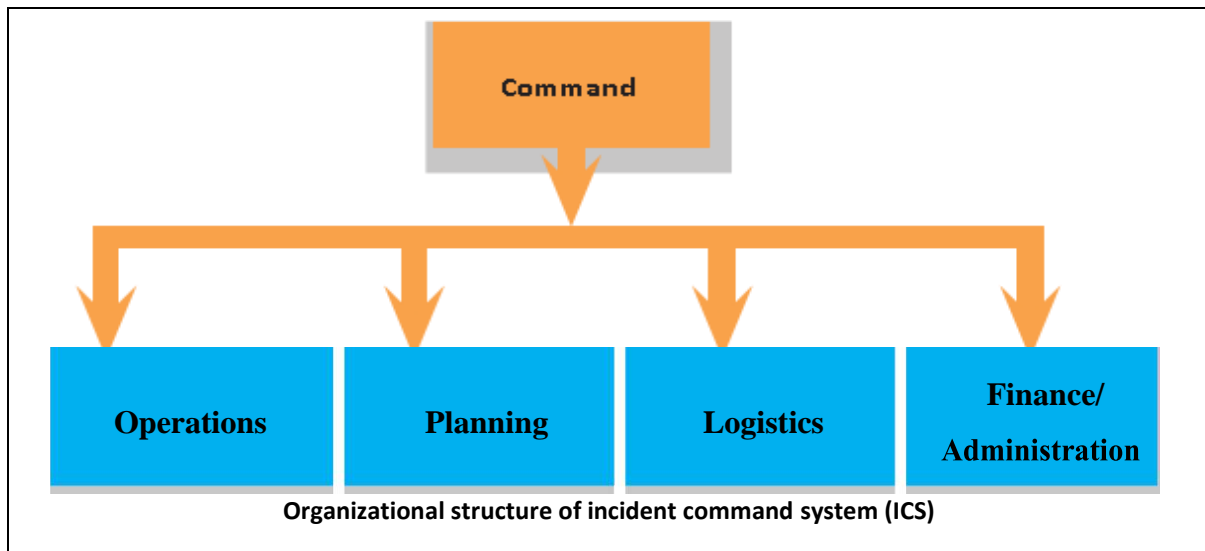
An ICG is required for the effective development and management of hospital-based emergency response systems and procedures. The ICS will take overall operational leadership and will deliver response and mitigation plans, coordinate logistic supply, oversight for all aspects of crisis management, coordinate the overall response, approve all actions and serves as the final authority of all activities and decisions made during emergency response operations. To implement the incident command system (ICS), an incident command group (ICG) will have to be formed, with representatives from all hospital services.

When organizing a hospital incident command group, consider including representatives from the following services (if those services/departments are available).

- Hospital administration
- Communications
- Security
- Nursing administration
- Store management
- Pharmacy
- Infection prevention and control (IPC)
- Emergency Department management

- Medicine department
- Surgery and casualty department
- Engineering and maintenance
- Laboratory
- Nutrition or food department
- Social service department
- Laundry, cleaning, and waste

Incident Command Group (ICG) allows for the efficient transfer of command by recognizing that personnel initially assuming a command position may be relieved by someone with more experience as additional personnel arrive and share the incident command workload or shift change.

- The transfer of command begins with a transition meeting in which the outgoing commander briefs the replacement on the current situation, response actions, available resources, and the role of external agencies in support of the hospital.

- Health, medical, and safety concerns are addressed, and, if relevant, political sensitivities and business continuity capabilities may also be discussed.

- After the transfer of command is completed, proper documentation is prepared and, where appropriate, broadly communicated to staff.

- Hospital Incident Commander (IC) ensures each appointed Command/General Staff member is adequately briefed on response issues and objectives.

Incident Command Group

1. Incident Commander
2. Public Information Officer (PIO)
3. Liaison Officer
4. Safety Officer
5. Medical Technical Specialist
6. General Staff
7. Operations Officer
8. Planning Officer
9. Demobilization Unit In-charge
10. Logistics Officer
11. Service Unit In-Charge:
12. Support Branch In-Charge:
13. Finance and Administration Office

Action-2:

Designate a hospital command Centre, i.e., a specific location prepared to convene and coordinate hospital-wide emergency response activities and equipped with effective means of communication.

Action-3:

For each of the nine key components for hospital emergency response plan designate an individual (focal point) to ensure the appropriate management and coordination of related response activities. The table below shows a format that could be used in this regard and should be disseminated among the ICG members as well as all concerned hospital staff.

Serial No.	Designation	Name of the individual
1	Command and control	Director/UH&FPO/RMO
2	Communication	Media wing
3	Safety and security	Security In charge
4	Triage	In-charge Nurse
5	Surge capacity	Facilities manager
6	Continuity of essential services	Director/UH&FPO/RMO
7	Human resources	Head of admin
8	Logistics and supply management	Supply chain manager
9	Post-disaster recovery	Emergency management team

Action-4:

Designate prospective replacements for directors and focal points to guarantee continuity of the command-and-control structure and function.

ICG position	Hospital position	Remarks
Incident Commander	Director/UH&FPO/RMO	Primary
	Deputy Director/RMO	Alternative
		Weekends, Holidays and Off hours
Public Information Officer		Primary
		Alternative
		Weekends, Holidays and Off hours
Security Officer		Primary
		Alternative
		Weekends, Holidays and Off hours
Liaison Officer		Primary
		Alternative
		Weekends, Holidays and Off hours
Clinical Management Supervisor		Primary

ICG position	Hospital position	Remarks
		Alternative
		Weekends, Holidays and Off hours
Logistics Officer		Primary
		Deputy Chief/Alternative
		Weekends, Holidays and Off hours
Finance and Admin Officer		Primary
		Deputy Chief/Alternative

Action-5:

Consult core internal and external documents (e.g., publications of the national health authority and WHO) related to hospital emergency management to ensure application of the basic principles and accepted strategies related to planning and implementing a hospital incident action plan.

Action-6:

Implement or develop job action sheets that briefly list the essential qualifications, duties and resources required of ICG members, hospital managers and staff for emergency-response activities.

Action-7:

Ensure that all ICG members have been adequately trained on the structure and functions of the incident command system (ICS) and that other hospital staff and community networks are aware of their roles within the ICS.

Tool 1: Command and Control

Steps	Actions		Use these cells to write the action's output for practice
Step 1	Designate a hospital command centre, i.e., a specific location prepared to convene and coordinate hospital-wide emergency response activities and equipped with effective means of communication	⇩	
Step 2	Designate an individual (focal point) to ensure the appropriate management and coordination of related response activities.	⇩	

Steps	Actions		
Step 3	Designate prospective replacements for directors and focal points to guarantee continuity of the command-and-control structure and function	⇩	
Step 4	Consult core internal and external documents related to hospital emergency management to ensure application of the basic principles and accepted strategies related to planning and implementing a hospital incident action plan.	⇩	

Steps	Actions		
Step 5	Implement or develop job action sheets	⇩	
Step 6	Ensure that all ICG members have been adequately trained on the structure and functions of the incident command system (ICS) and that other hospital staff and community networks are aware of their roles within the ICS	⇩	

Reading Materials/for more information
1. https://app.adpc.net/resources/hospital-emergency-response-plan-herp-guideline/
2. https://www.phe.gov/Preparedness/planning/mscc/handbook/chapter1/Pages/emergencymanagement.aspx
3. https://asdma.gov.in/pdf/publication/undp/guidelines_hospital_emergency.pdf
4. https://files.asprtracie.hhs.gov/documents/epimn-module-2-understanding-hospital-ics.pdf

Session- 04: Communications of the hospital and emergency response plan

Time: 60 minutes

Objectives:

After completion of the session participants will be able to:

- Explain the concept and importance of communication of hospital and emergency response plan.
- Explain actions of communication of hospital and emergency response plan.
- Explain and practice on tools of communication of hospital and emergency response plan.

Steps, Contents, Time, Methods and Materials:

Steps	Contents	Time	Methods/techniques	Materials
1.	Concept and importance of communication of hospital and emergency response plan	5 m	Brain storming, discussion and visualized presentation	Flip sheet, marker, VIPP board, multimedia
2.	Actions of communication	15 m	Brain storming, discussion and visualized presentation	Flip sheet, marker, VIPP board, multimedia
3.	Tools of communication	15 m	Brain storming, discussion and Visualized presentation	Flip sheet, marker, VIPP board, multimedia, tools of communication
4.	Practice on tools of communication	20 m	Brain storming, discussion and Visualized presentation	vulnerability analysis tools flip sheet, marker, sheet of tools of communication
5.	Sum up	05 m	Q & A and discussion	Interaction with the participants

Process:

- Greet the participants and invite them to the session to participate.
- Tell communications of the hospital is the second component of climate informed emergency preparedness and response plan of a hospital.
- Ask the participants to share their ideas/thoughts about communication and why it is important.
- Discuss with the participants by sharing the power point presentation on communication.
- Discuss and explain with the participants about actions points of communication.
- Discuss and explain with the participants about tools of communication.
- Divide participants into four groups and provide them tools of communication and tell them to write down output against each action's points.
- Invite participants to present their group work in to planery
- Ask if any question they have and give answer.
- Summarize and conclude the session by giving thanks to the participants for active participants.

Communication

Effective communication is another important aspect of emergency management. Shared information should be precise and clear. Multiple means of communication should be planned to communicate with hospital staffs, administrator, patients, and communities. Clear, accurate and timely communication is necessary to ensure informed decision-making, effective collaboration and cooperation, and public awareness and trust.

Communication

Communication with the affected community is especially important during an emergency. Alerts and warnings; directives about evacuation, curfews, and other self-protective measures; and information about response status, family members, available assistance, and other matters affecting response and recovery are all examples of emergency communications.

Communication

Emergency messages that are well-conceived and effectively delivered can help ensure public safety, protect property, facilitate response efforts, elicit cooperation, instill public confidence, and help families reunite.

Communication

Several communication tools are used during emergencies which includes in-person communication, print and broadcast media, the Internet, and social media. Each tool has advantages and disadvantages depending on the communication goal and intended audience.

Communication

The ICS will establish a protocol for providing timely and accurate information to the public during crisis or emergency situations. During an event, the Public Information Officer (PIO) will be assigned to manage:

- Media and public inquiries;

- Emergency public information and warnings;

- Rumor monitoring and response;

- Social Media monitoring;

- Clearing messages with appropriate authorities and disseminating accurate and timely information related to the incident, particularly regarding information on public health, safety and protection, and patient care and management issues.

In the following certain steps are advised to be maintained for effective lines of communication with the public, employees, and the media below.

1. Designate a space for press conferences (outside the immediate proximity of the emergency department, triage/waiting areas, and the command Centre).

2. Draft the brief key messages for target audiences (e.g., patients, staff, public) for the most likely disaster scenarios. For patients whose family members are not at the hospital prior to an emergency, the PIO in conjunction with Social Services will communicate family members as needed.

In the following certain steps are advised to be maintained for effective lines of communication with the public, employees, and the media below.

3. If a hospital can no longer sustain, operations and relocation of patients becomes necessary. The PIO will establish processes to communicate pertinent information to patients and their families – including when patients are relocated to an alternative care site. Consistent with laws and regulations surrounding confidentiality of patient information, families may be apprised of the following:

   i. Verification that the patient is at the organization.
   ii. The general condition of the patient.
   iii. If the patient is going to be moved to an alternate care site, then his/her name, address, and specific care area of that site, as well as the anticipated timeframe for relocation must be recorded.

In the following certain steps are advised to be maintained for effective lines of communication with the public, employees, and the media below.

4. Ensure that all communications to the public, media, staff (in general) and health authorities are approved by the incident commander or ICG. The main responsibility in talking to the media and conducting press briefing / interview will be with the IC unless this responsibility is delegated to the Public Information Officer (PIO).

5. Establish streamlined mechanisms of information exchange between hospital administration, department/unit heads and facility staff Modern communication methods (e.g., WhatsApp, messenger) can be used for this purpose.

In the following certain steps are advised to be maintained for effective lines of communication with the public, employees, and the media below.

6. Brief hospital staff on their roles and responsibilities within the incident action plan. The IC or PIO will be responsible for briefing all hospital staff on their roles in accordance with the Incident Command Group and job action sheet provided in the annex section.

7. Establish mechanisms for the appropriate and timely collection, processing and reporting of information to supervisory stakeholders (e.g., the government, health authorities), and through them to neighboring hospitals, private practitioners and prehospital networks (). A representative from the hospital should be appointed to act as an in-person Liaison of ICS. This person would be responsible for facilitating timely communication between the respective Command Centers.

In the following certain steps are advised to be maintained for effective lines of communication with the public, employees, and the media below.

8. Ensure that all decisions related to patient prioritization (e.g., adapted admission and discharge criteria, triage methods, infection prevention and control measures) are communicated to all relevant staff and stakeholders.

9. Ensure the availability of reliable and sustainable primary and back-up communication systems (e.g., satellite phones, mobile devices, landlines, Internet connections, pagers, two-way radios, unlisted numbers), as well as access to an updated contact list.

10. Incident Commander has to ensure that the hospital has several methods of internal and external communication. It is the responsibility of the Incident Commander to confirm that multiple means of communication are utilized appropriately and when needed.

In the following certain steps are advised to be maintained for effective lines of communication with the public, employees, and the media below.

Through various activities, the facility participates in advance preparation to support communications during an emergency. These include:

- Maintenance of communication equipment.
- Practice with alternate communications during drill exercises.
- Receiving communications 24/7.

Tool 2: Communication:

Clear, accurate and timely communication is necessary to ensure informed decision-making, effective collaboration and cooperation, and public awareness and trust. Steps are as bellow:

Steps	Actions		Use these cells to write the action's output for practice
Step 1	Appoint a spokesperson to coordinate hospital communication with the public, the media and health authorities.	⇩	
Step 2	Designate a space for press conferences (better if it is near to the immediate proximity of the emergency department, triage/waiting areas and the command centre).	⇩	
Step 3	Brief and simple key massages for target audiences (e.g., patients, staff, public) in preparation for the most likely disaster scenarios	⇩	
Step 4	Ensure that all communications to the public, media, staff (in general) and health authorities are approved by the incident commander or ICG.	⇩	
Step 5	Establish streamlined mechanisms of information exchange between hospital administration, department/unit heads and facility staff	⇩	
Step 6	Brief hospital staff on their roles and responsibilities within the incident action plan	⇩	
Step 7	Ensure that all decisions related to patient prioritization (e.g., adapted admission and	⇩	

Steps	Actions		Use these cells to write the action's output for practice
	discharge criteria, triage methods, infection prevention and control measures) are communicated to all relevant staff and stakeholders		
Step 8	Ensure the availability of reliable and sustainable primary and back-up communication systems (e.g., satellite phones, mobile devices, landlines, Internet connections, pagers, two-way radios, unlisted numbers).	⇩	

Reading Materials/for more information

1. https://www.humanitarianresponse.info/sites/www.humanitarianresponse.info/files/documents/files/bgd_bkgd_emerg-resp-plan_2014_0.pdf

2. https://www.calhospitalprepare.org/communications

3. https://www.t-mobile.com/content/dam/tfb/pdf/govt/9805386-ERT-eBook-R4T3_nz.pdf?icid=TFB_TMO_P_PSSAFETY_WJYGTTYTVB67YYI3L26463

Session- 05: Safety and Security of the hospital and emergency response plan

Time: 60 minutes

Objectives:

After completion of the session participants will be able to:

- Explain the concept and importance of safety and security of hospital and emergency response plan.
- Explain actions of safety and security of hospital and emergency response plan.
- Explain and practice on tools of safety and security of hospital and emergency response plan.

Steps, Contents, Time, Methods and Materials:

Steps	Contents	Time	Methods/techniques	Materials
1.	Concept and importance of safety and security of hospital and emergency response plan	05 m	Brain storming, discussion and visualized presentation	Flip sheet, marker, VIPP board, multimedia
2.	Actions of safety and security	15 m	Brain storming, discussion and visualized presentation	Flip sheet, marker, VIPP board, multimedia
3.	Tools of safety and security	15 m	Brain storming, discussion and Visualized presentation	Flip sheet, marker, VIPP board, multimedia
4.	Practice on tools of safety and security	20 m	Brain storming, discussion and Visualized presentation	vulnerability analysis tools flip sheet, marker,
5.	Sum up	05 m	Q & A and discussion	Interaction with the participants

Process:

- Greet the participants and invite them to the session to participate.
- Tell participants safety and security is the third component of hospital and emergency response plan.
- Ask the participants to share their ideas/thoughts about safety and security and why it is important.
- Discuss with the participants by sharing the power point presentation on safety and security.
- Discuss and explain with the participants about actions points of safety and security.
- Discuss and explain with the participants about tools of safety and security.
- Divide participants into four groups and provide them tools of safety and security and tell them to write down output against each action's points.
- Invite participants to present their group work in to planery.
- Ask if any question they have and give answer.
- Summarize and conclude the session by giving thanks to the participants for active participants.

Safety and security

During the emergency response and recovery phases, safety and security measures, as well as monitoring activities, are critical. The health-care system is dedicated to providing a safe and secure environment for patients, staff, and visitors. The hospital's security measures protect patients, staff, and visitors from inappropriate behavior such as violence and aggression. Well-developed safety and security procedures are essential for operating the hospital functions and incident response during a disaster.

Consider taking the following action as part of safety and security.

1. Appoint a hospital security team responsible for all hospital safety and security activities.

   ✓ When ICG is activated, safety and security measures, as well as monitoring activities, play a critical role in the emergency response and recovery phases.

   ✓ Designated Safety and Security Officers keep an eye on different events during emergency drills and when emergency measures are put in place.

Consider taking the following action as part of safety and security.

2. Prioritize security needs in collaboration with the hospital ICG. Identify areas where increased vulnerability is anticipated (e.g., entry/exits, food/water access points, pharmaceutical stockpiles).

   ✓ When the ICS is activated, Security Officers on duty will be responsible for locking all exits and entrances except the Emergency Department entrances. All hospital healthcare workers must always wear ID badges.

Consider taking the following action as part of safety and security.

3. Ensure the early control of facility access point(s), triage site(s) and other areas of patient flow, traffic and parking. Limit visitor access as appropriate. During emergency conditions, it becomes necessary to control the movement of visitors to facilitate a safe and controlled environment during emergencies.

4. Movement within the hospital will be controlled by security through security checkpoints, control of elevators, and control of doors. Health care facilities that do not perform essential functions may be redirected.

Consider taking the following action as part of safety and security.

5. Provide a mechanism for escorting emergency medical personnel and their families to patient care areas.

6. Ensure that security measures required for safe and efficient hospital evacuation are clearly defined.

7. Ensure that the rules for engagement in crowd control are clearly defined.

8. Solicit frequent input from the hospital security team with a view to identifying potential safety and security challenges and constraints, including gaps in the management of hazardous materials and the prevention and control of infection.

Consider taking the following action as part of safety and security.

9. Identify information insecurity risks. Implement procedures to ensure the secure collection, storage and reporting of confidential information. During hospital emergency there is a high possibility of spreading wrong information that can mislead people, hospital staff and patients. So, it is essential to secure the information and provide it to the officer who oversees communication and press briefing.

10. Define the threshold and procedures for integrating local law enforcement and military in-hospital security operations.

Consider taking the following action as part of safety and security.

11. Establish an area for radioactive, biological, and chemical decontamination and isolation. The hospital has set aside a space for radioactive or chemical isolation, as well as radioactive, chemical, and biological decontamination. Healthcare workers should be trained to respond to hazardous material contamination. The Disaster Resource Center, Facilities Department, Security, Safety, and Emergency Management Committee maintains and coordinates the decontamination facilities.

Tool 3: Safety and Security

Well-developed safety and security procedures are essential for the maintenance of hospital functions and for incident response operations during a disaster.

Steps	Actions		Use these cells to write the action's output for practice
Step 1	Appoint a hospital security team responsible for all hospital safety and security services	⇩	
Step 2	Prioritize security needs in collaboration with the hospital ICG. Identify areas where increased vulnerability is anticipated (e.g., entry/exits, food/water access points, pharmaceutical stockpiles).	⇩	

Steps	Actions		Use these cells to write the action's output for practice
Step 3	Ensure the control of facility access point(s), triage site(s) and other areas of patient flow, traffic and parking. Limit visitor access as appropriate	⇩	
Step 4	Establish a well-accepted mode of identifying hospital personnel, patients and visitors	⇩	
Step 5	Provide a mechanism for escorting emergency medical personnel to patient care areas.	⇩	
Step 6	Ensure that security measures for safe and efficient hospital evacuation are clearly defined	⇩	
Step 7	Ensure that the rules for engagement in crowd control are clearly defined	⇩	
Step 8	Identify potential safety and security challenges and constraints, including gaps in the management of hazardous materials and the prevention and control of infection	⇩	
Step 9	Integrate local law enforcement and military in hospital security operations, if needed	⇩	
Step 10	Establish an area for radioactive, biological and chemical decontamination and isolation	⇩	

Reading Materials/for more information

1. https://www.careemergencytoolkit.org/management/9-safety-and-security/1-role-of-safety-and-security-management-in-an-emergency/

2. https://www.peacehealth.org/sites/default/files/2022-04/cmer-security-safety.pdf

3. https://www.jointcommission.org/resources/patient-safety-topics/emergency-management/emergency-management-webinars/safety-and-security-em120207/

Session- 06: Triage of the hospital and emergency response plan
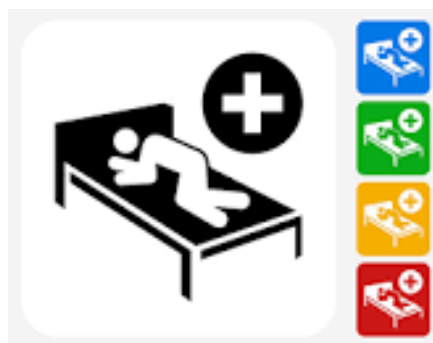
Time: 60 minutes

Objectives:

After completion of the session participants will be able to:

- Explain the concept and importance of triage of hospital and emergency response plan.
- Explain actions of triage of hospital and emergency response plan.
- Explain and practice on tools of triage of hospital and emergency response plan.

Steps, Contents, Time, Methods and Materials:

Steps	Contents	Time	Methods/techniques	Materials
1.	Concept and importance of triage of hospital and emergency response plan	05 m	Brain storming, discussion and visualized presentation	Flip sheet, marker, VIPP board, multimedia
2.	Actions of triage of	15 m	Brain storming, discussion and visualized presentation	Flip sheet, marker, VIPP board, multimedia
3.	Tools of triage	15 m	Brain storming, discussion and Visualized presentation	Flip sheet, marker, VIPP board, multimedia
4.	Practice on tools of triage	20 m	Brain storming, discussion and Visualized presentation	vulnerability analysis tools flip sheet, marker,
5.	Sum up	05 m	Q & A and discussion	Interaction with the participants

Process:

- Greet the participants and invite them to the session to participate.
- Tell participants triage is the third component of hospital and emergency response plan.
- Ask the participants to share their ideas/thoughts about triage and why it is important.
- Discuss with the participants by sharing the power point presentation on triage.
- Discuss and explain with the participants about actions points of triage.
- Discuss and explain with the participants about tools of triage.
- Divide participants into four groups and provide them tools of triage and tell them to write down output against each action's points.
- Invite participants to present their group work in to planery.
- Ask if any question they have and give answer.
- Summarize and conclude the session by giving thanks to the participants for active participants.

Triage

Ideally, the first people who require medical treatment should receive it. In less-than-ideal circumstances, someone must decide who receives care first.

Even when there is no disaster or health emergency, some health facilities must make these decisions daily. Natural disasters or other events can, on the other hand, result in a large number of injured or sick people at the same time. When this occurs, decisions must be made about how to best allocate care when resources are insufficient to care for everyone who requires it. This is referred to as triage.
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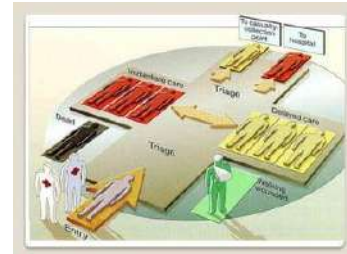
Triage

Triage's goal is to save as many lives as possible. During a severe pandemic, expect the period when the need for healthcare exceeds the available resources to last weeks or months. Using scarce medical resources to healthcare for patients who may be critically ill but will likely die even with intensive care may result in other less ill patients not receiving care, becoming sicker, and dying.

Triage, when done correctly, results in the best outcome for the greatest number of people. Without a triage plan, resources are likely to be wasted, and more people will die. As a result, ICG must include a triage plan and execute it properly.

Triage

Maintaining patient triage operations, based on a well-functioning mass-casualty triage protocol, is essential for the appropriate organization of patient care. Consider taking the following action.

1. Designate an experienced officer to oversee all triage operations (e.g., a trauma or emergency physician or a well-trained emergency nurse in a supervisory position).

2. Ensure that areas for receiving patients, as well as waiting areas, are effectively covered, secure from potential environmental hazards and provided with adequate workspace, lighting, WASH facilities and access to auxiliary power.

Triage

3. Ensure that the triage area is in close proximity to essential personnel, medical supplies and key care services (e.g., the emergency department, operative suites, the intensive care unit).

4. Ensure that entrance and exit routes to/from the triage area are clearly marked.

5. Identify a contingency site for receipt and triage of mass-casualties.

6. Identify an alternative waiting area for wounded patients able to walk.

7. Establish a mass-casualty triage protocol based on severity of illness/injury, survivability and hospital capacity that follows internationally accepted principles and guidelines.

Triage

8. Establish a clear method of patient triage identification; ensure adequate supply of triage tags.

9. Identify a mechanism whereby the hospital emergency response plan can be activated from the emergency department or triage site.

10. Ensure that adapted protocols on hospital admission, discharge, referral, and operative suite access are operational when the disaster plan is activated to facilitate efficient patient processing.

Tool 4: Triage

Maintaining patient triage operations, based on a well-functioning mass-casualty triage protocol, is essential for the appropriate organization of patient care

Steps	Actions		Use these cells to write the action's output for practice
Step 1	Designate an experienced triage officer to oversee all triage operations	⇩	
Step 2	Ensure that areas for receiving patients, as well as waiting areas, are effectively covered, secure from potential environmental hazards and provided with adequate workspace, lighting and access to auxiliary power	⇩	

Steps	Actions		Use these cells to write the action's output for practice
Step 3	Ensure that the triage area is in close proximity to essential personnel, medical supplies and key care services	⇩	
Step 4	Ensure that entrance and exit routes to/from the triage area are clearly identified.	⇩	
Step 5	Identify a contingency site for receipt and triage of mass-casualties	⇩	
Step 6	Identify an alternative waiting area for wounded patients able to walk	⇩	
Step 7	Establish a mass-casualty triage protocol based on severity of illness/injury, survivability and hospital capacity	⇩	
Step 8	Establish a clear method of patient triage identification; ensure adequate supply of triage tags	⇩	
Step 9	Ensure that hospital admission, discharge, referral and operative suite access are operational when the disaster plan is activated to facilitate efficient patient processing	⇩	

Reading Materials/for more information

1. https://www.health.nsw.gov.au/Hospitals/Going_To_hospital/Pages/triage.aspx

2. https://www.amazon.com/Hospital-Emergency-Response-Teams-Disaster-ebook/dp/B003M5HT5E

Session- 07: Surge capacity of the hospital and emergency response plan

Time: 60 minutes

Objectives:

After completion of the session participants will be able to:

- Explain the concept and importance of surge capacity of hospital and emergency response plan.
- Explain actions of surge capacity of hospital and emergency response plan.
- Explain and practice on tools of surge capacity of hospital and emergency response plan.

Steps, Contents, Time, Methods and Materials:

Steps	Contents	Time	Methods/techniques	Materials
1.	Concept and importance of surge capacity	05 m	Brain storming, discussion and visualized presentation	Flip sheet, marker, VIPP board, multimedia
2.	Actions of surge capacity	15 m	Brain storming, discussion and visualized presentation	Flip sheet, marker, VIPP board, multimedia
3.	Tools of surge capacity	15 m	Brain storming, discussion and Visualized presentation	Flip sheet, marker, VIPP board, multimedia
4.	Practice on tools of surge capacity	20 m	Brain storming, discussion and Visualized presentation	vulnerability analysis tools flip sheet, marker,
5.	Sum up	05 m	Q & A and discussion	Interaction with the participants

Process:

- Greet the participants and invite them to the session to participate.
- Tell participants surge capacity is the fifth component of hospital and emergency response plan.
- Ask the participants to share their ideas/thoughts about surge capacity and why it is important.
- Discuss with the participants by sharing the power point presentation on surge capacity.
- Discuss and explain with the participants about actions points of surge capacity.
- Discuss and explain with the participants about tools of surge capacity.
- Divide participants into four groups and provide them tools of surge capacity and tell them to write down output against each action's points.
- Invite participants to present their group work in to planery.
- Ask if any question they have and give answer.
- Summarize and conclude the session by giving thanks to the participants for active participants.

Surge capacity

Surge capacity is a critical component of hospital readiness for responding to emergencies and disasters. It is the ability of a health service to expand beyond normal capacity to meet increased demand for clinical care which is an important factor of hospital disaster response and should be addressed early in the planning process.

Surge capacity

In a healthcare facility, during emergency the number of incoming patients usually increases, hence the ability to expand services and increase of beds by the healthcare facility becomes critical. Although temporary increases in capacity can result from the cancellation or postponement of routine patient loads, there must eventually be an expansion of overall facility capacity or the addition of new facilities into the system. This can be accomplished by adding portable facilities.

Surge capacity

When new patients arrive, primary level hospitals may need to increase bed capacity for definitive treatment. Discharging elective cases and stable recovering patients, ceasing non-emergency admissions, and converting waiting/non-patient care areas into makeshift wards are among the suggestions. Consider taking the following action.

1. Calculate maximum capacity required for patient admission and care based not only on a total number of beds required but also on the availability of human and essential resources and the adaptability of facility space for critical care.

2. Estimate the increase in demand for hospital services, using available planning assumptions and tools.

Surge capacity

3. Identify methods of expanding hospital inpatient capacity (taking physical space, staff, supplies and processes into consideration).

4. Designate additional healthcare areas for patient overflow (e.g., auditorium, lobby).

5. Increase hospital capacity by outsourcing the care of non-critical patients to appropriate alternative treatment sites (e.g., outpatient departments adapted for inpatient use, home care for low-severity illness, and chronic-care facilities for long-term patients)

6. Verify the availability of vehicles and resources required for patient transportation.

Surge capacity

7. Establish a contingency plan for inter facility patient transfer should traditional methods of transportation become unavailable.

8. Identify potential gaps in the provision of medical care, with emphasis on critical and emergent surgical care. Address these gaps in coordination with the authorities and neighboring and network hospitals.

9. In coordination with the local authorities, identify additional sites that may be converted to patient care units (e.g., convalescent homes, hotels, schools, community centers, gyms

10. Prioritize/cancel nonessential services (e.g., elective surgery) when necessary.

Surge capacity

11. Adapt hospital admission and discharge criteria and prioritize clinical interventions according to available treatment capacity and demand.

12. Designate an area for use as a temporary morgue. Ensure the adequate supply of body bags.

13. Formulate a contingency plan for postmortem care with the appropriate partners (e.g., morticians, medical examiners and pathologists).

Tool 5: Surge Capacity

Steps	Actions		Use these cells to write the action's output for practice
Step 1	Calculate maximal capacity required for patient admission and care focusing human and essential resources and the adaptability of facility space for critical care	⇩	
Step 2	Estimate the increase in demand for hospital services, using available planning assumptions and tools	⇩	
Step 3	Identify methods of expanding hospital inpatient capacity, in case of any need	⇩	
Step 4	Designate care areas for patient overflow	⇩	
Step 5	Increase hospital capacity by outsourcing the care of non-critical patients to appropriate alternative treatment sites	⇩	
Step 6	Verify the availability of vehicles and resources required for patient transportation	⇩	

Steps	Actions		Use these cells to write the action's output for practice
Step 7	Establish a contingency plan for interfacility patient transfer	⇩	
Step 8	Identify potential gaps in the provision of medical care, with emphasis on critical and emergent surgical care. Address these gaps in coordination with the authorities and neighboring and network hospitals	⇩	
Step 9	In coordination with the local authorities, identify additional sites that may be converted to patient care units	⇩	
Step 10	Prioritize/cancel nonessential services	⇩	
Step 11	Adapt hospital admission and discharge criteria and prioritize clinical interventions according to available treatment capacity and demand	⇩	
Step 12	Designate an area for use as a temporary morgue	⇩	
Step 13	Formulate a contingency plan for postmortem care with the appropriate partners	⇩	

Reading Materials/for more information

1. https://publichealthproviders.sccgov.org/programs/emergency-preparedness/hospital-surge-capacity-toolkit

2. https://www.researchgate.net/publication/314304182_Surge_Capacity_of_Hospitals_in_Emergencies_and_Disasters_With_a_Preparedness_Approach_A_Systematic_Review

Session- 08: Continuity of essential services of the hospital and emergency response plan
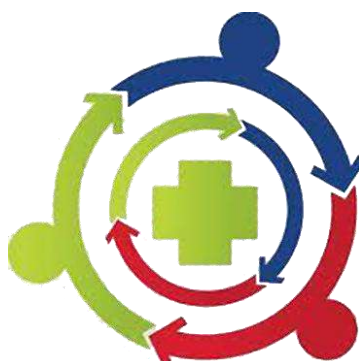
Time: 60 minutes

Objectives:

After completion of the session participants will be able to:

- Explain the concept and importance of continuity of essential services of hospital and emergency response plan.
- Explain actions of continuity of essential services of hospital and emergency response plan.
- Explain and practice of tools of continuity of essential services of hospital and emergency response plan.

Steps, Contents, Time, Methods and Materials:

Steps	Contents	Time	Methods/techniques	Materials
1.	Concept and importance of continuity of essential services	10 m	Brain storming, discussion and visualized presentation	Flip sheet, marker, board, multimedia
2.	Actions of continuity of essential services	15 m	Brain storming, discussion and visualized presentation	Flip sheet, marker, multimedia
3.	Tools of continuity of essential services	15 m	Brain storming, presentation discussion	Flip sheet, marker, VIPP board, multimedia
4.	Practice on tools of continuity of essential services	15 m	Group work discussion and presentation	vulnerability analysis tools flip sheet, marker,
5.	Sum up	05 m	Q & A and discussion	Interaction with the participants

Process:

- Greet the participants and invite them to the session to participate.
- Tell participants continuity of essential services is the sixth component of hospital and emergency response plan.
- Ask the participants to share their ideas/thoughts about continuity of essential services and why it is important.
- Discuss with the participants by sharing the power point presentation on continuity of essential services.
- Discuss and explain with the participants about actions points of continuity of essential services.
- Discuss and explain with the participants about tools of continuity of essential services.
- Divide participants into four groups and provide them tools of continuity of essential services and tell them to write down output against each action's points.
- Invite participants to present their group work in to planery.
- Ask if any question they have and give answer.
- Summarize and conclude the session by giving thanks to the participants for active participants.

Continuity of essential services

A disaster should not stop essential medical and surgical services (e.g., emergency care, urgent operations, maternal and childcare) that exists under normal circumstances. Rather, the availability of essential services needs to continue in parallel with the activation of a hospital emergency response plan. The determination of services that are considered essential is guided by the burden of disease, local and national priorities.

Continuity of essential services

The existing Essential Service Package of the Ministry of Health and Family Welfare is to be followed. The actions of the packages are as follows. List all hospital services, ranking them in order of priority.

1. Identify and maintain the essential hospital services, i.e., those that need to be always available in any circumstances. Take the Essential Service Package (ESP) into consideration.

2. Identify the resources needed to ensure the continuity of essential services in hospital, for the critically ill patients and other vulnerable groups (e.g., pediatric, elderly and disabled patients).

Continuity of essential services

3. Ensure the existence of a systematic and implementable evacuation plan that seeks to safeguard the continuity of critical care (including, for example, access to mechanical ventilation and life-sustaining medications).

4. Coordinate with the higher health authorities, neighboring hospitals and private practitioners on defining the roles and responsibilities of each member of the local health-care network to ensure the continuous provision of essential medical services throughout the community in disasters.

Continuity of essential services

5. Ensure the availability of appropriate back-up arrangements for essential lifelines, including water, power and oxygen.

6. Anticipate the impact of the most likely disaster events on hospital supplies of food and water. Take action to ensure the availability of adequate supplies.

7. Ensure contingency mechanisms for the collection and disposal of human, hazardous and other.

8. Hospital waste management.

Tool 6: Continuity of essential services

Steps	Actions		Use these cells to write the action's output for practice
Step 1	List all hospital services, ranking them in order of priority	⇩	
Step 2	Identify and maintain the essential hospital services	⇩	
Step 3	Identify the resources needed to ensure the continuity of essential hospital services, in particular those for the critically ill and other vulnerable groups	⇩	
Step 4	Coordinate with the health authorities, neighboring hospitals and private practitioners on defining the roles and responsibilities of each member of the local health-care network to ensure the continuous provision of essential medical services throughout the community	⇩	
Step 5	Ensure the availability of appropriate back-up arrangements for essential lifelines, including water, power and oxygen	⇩	
Step 6	Anticipate the impact of the most likely disaster events on hospital supplies of food and water. Take action to ensure the availability of adequate supplies	⇩	
Step 7	Ensure contingency mechanisms for the collection and disposal of human, hazardous and other hospital waste.	⇩	

Reading Materials/for more information

1. https://www.jhpiego.org/wp-content/uploads/2020/06/Jhpiego-Operational-Guidance-for-Continuity-of-Essential-Services-Final.pdf

Session- 09: Human resources of the hospital and emergency response plan

Time: 60 minutes

Objectives:

After completion of the session participants will be able to:

- Explain the importance of human resources of hospital and emergency response plan.
- Explain actions of human resources of hospital and emergency response plan.
- Practice on tools of human resources of hospital and emergency response plan.

Steps, Contents, Time, Methods and Materials:

Steps	Contents	Time	Methods/techniques	Materials
1.	Importance of human resources and concept of essential services	10 m	Discussion and visualized presentation	Flip sheet, marker, multimedia
2.	Actions of human resources and essential services	15 m	Brain storming, discussion and visualized presentation	Flip sheet, marker, VIPP board, multimedia
3.	Tools of human resources and essential services	15 m	Brain storming, discussion and Visualized presentation	Flip sheet, marker, VIPP board, multimedia
4.	Practice on tools of human resources and essential services	15 m	Group work, discussion and presentation	vulnerability analysis tools flip sheet, marker,
5.	Sum up	05 m	Q & A and discussion	Interaction with the participants

Process:

- Greet the participants and invite them to the session to participate.
- Tell participants human resources is the seventh component of hospital and emergency response plan.

- Ask the participants to share their ideas/thoughts about human resources why it is important.

- Discuss with the participants by sharing the power point presentation on human resources services.

- Discuss and explain with the participants about actions points of human resources.

- Discuss and explain with the participants about tools of human resources.

- Divide participants into four groups and provide them tools of human resources and tell them to write down output against each action's points.

- Invite participants to present their group work in to planery

- Ask if any question they have and give answer.

- Summarize and conclude the session by giving thanks to the participants for active participants.

Human resources

In an emergency, the hospital must mobilize an adequate number of staff. Lessons learned show that having the right people at the right time is critical to the success. This includes having the appropriate human resource management staff, skills, policies, and support.

Human resources

Effective human resource management is essential to ensure adequate staff and the continuity of operations during any incident that increases the demand for healthcare services Consider taking the following action.

1. Update the hospital staff contact list.

2. Estimate and continuously monitor staff absenteeism.

3. Establish a clear staff sick-leave policy, including contingencies for ill or injured family members or dependents of staff.

Human resources

4. Identify the minimum needs in terms of health-care workers and other hospital staff to ensure the operational sufficiency of a given hospital department.

5. Establish a contingency plan for the provision of food, water and living space for hospital personnel.

6. Prioritize staffing requirements and distribute personnel accordingly.

7. Recruit and train additional staff as volunteers (e.g., retired staff, university affiliates/students and community volunteers) according to the anticipated need. Local community support will be needed.

Human resources

8. Trained health-care providers in high-demand services (e.g., emergency, surgical, and intensive care units).

9. Provide training and exercises in areas of potential increased clinical demand, including emergency and intensive care, to ensure adequate staff capacity and competency.

Human resources

10. Identify domestic support measures (e.g., travel, childcare, care for ill or disabled family members) to enable staff flexibility for shift reassignment and longer working hours.

11. Ensure adequate shift rotation and self-care for clinical staff to support morale and reduce medical error.

12. Ensure the availability of multidisciplinary psychosocial support.

13. Ensure that staff dealing with epidemic-prone infectious diseases are provided with the appropriate vaccinations, in accordance with national policy and guidelines of the health authority.

Tool 7: Human Resources

Steps	Actions		Use these cells to write the action's output for practice
Step 1	Update the hospital staff contact list.	⇩	
Step 2	Estimate and continuously monitor staff absenteeism.	⇩	
Step 3	Establish a clear staff sick-leave policy, including contingencies for ill or injured family members or dependents of staff.	⇩	
Step 4	Establish a contingency plan for the provision of food, water and living. space for hospital personnel	⇩	
Step 5	Prioritize staffing requirements and distribute personnel accordingly.	⇩	
Step 6	Recruit and train additional staff according to the anticipated need	⇩	
Step 7	Address liability, insurance and temporary licensing issues relating to additional staff and volunteers who may be required to work in areas outside the scope of their training or for which they have no license	⇩	
Step 8	Establish a system of rapidly providing health-care workers	⇩	
Step 9	Provide training and exercises in areas of potential increased clinical demand, including emergency and intensive care, to ensure adequate staff capacity and competency.	⇩	
Step 10	Identify domestic support measures to enable staff flexibility for shift reassignment and longer working hours.	⇩	
Step 11	Ensure adequate shift rotation and self-care for clinical staff to support morale and reduce medical error	⇩	
Step 12	Ensure the availability of multidisciplinary psychosocial support teams that include social	⇩	

Steps	Actions		Use these cells to write the action's output for practice
	workers, counsellors, interpreters, and clergy for the families of staff and patients.		
Step 13	Ensure that staff dealing with epidemic-prone respiratory illness are pro-vided with the appropriate vaccinations, in accordance with national policy and guidelines of the health authority.	⇩	

Session- 10: Logistics and supply management of the hospital and emergency response plan

Time: 60 minutes

Objectives:

After completion of the session participants will be able to:

- Explain the concept and importance of logistics and supply management of hospital and emergency response plan.
- Explain actions of logistics and supply management of hospital and emergency response plan.
- Practice on tools of logistics and supply management of hospital and emergency response plan.

Steps, Contents, Time, Methods and Materials:

Steps	Contents	Time	Methods/techniques	Materials
1.	Basic concept and importance of logistics and supply management	10 m	Visualized presentation Brain storming, discussion	Flip sheet, marker, VIPP board, multimedia
2.	Actions of logistics and supply management	15 m	Brain storming, visualized presentation and discussion	Flip sheet, marker, VIPP board, multimedia
3.	Tools of logistics and supply management	15 m	Brain storming, discussion and Visualized presentation	Flip sheet, marker, VIPP board, multimedia
4.	Practice on tools logistics and supply management	15 m	Group work, discussion and presentation	Vulnerability analysis tools flip sheet, marker
5.	Sum up	05 m	Q & A and discussion	Interaction with the participants

Process:

- Greet the participants and invite them to the session to participate.

- Tell logistic and supply management is the eighth component of climate informed emergency preparedness and response plan of a hospital.

- Ask the participants to share their ideas/thoughts about logistics and supply management and why it is important.

- Discuss with the participants by sharing the power point presentation on logistics and supply management.

- Discuss and explain with the participants about actions points of logistics and supply management.

- Discuss and explain with the participants about tools of logistics and supply management.

- Divide participants in to four groups and provide them tools of logistics and supply management and tell them to write down output against each action's points.

- Invite participants to present their group work in to planery.

- Ask if any question they have and give answer.

- Summarize and conclude the session by giving thanks to the participants for active participants.

Logistics and supply management

During a disaster, supply chain vulnerabilities such as power, transportation, and communication can disrupt the delivery of medications and medical supplies, limiting the ability to provide critical care services. Disasters can also disrupt information technology (IT) in health-care systems, causing disruptions in patient care, particularly critical care, and other health-care business functions.

Logistics and supply management

Continuity of the hospital supply and delivery chain is often an underestimated challenge during a disaster, requiring attentive contingency planning and response Consider taking the following action.

1. Develop and maintain an updated inventory of all equipment, supplies and pharmaceuticals; establish a shortage-alert mechanism.

2. Estimate the consumption of essential supplies and pharmaceuticals, (e.g., amount used per week)

Logistics and supply management

3. Consult with authorities to ensure the continuous provision of essential medications and supplies (e.g., those available from institutional and central stockpiles and through emergency agreements with local suppliers and national and international aid agencies).

4. Assess the quality of contingency items prior to purchase; request quality certification if available.

5. Ensure the procurement and prompt delivery of equipment, supplies and other resources in times of shortage.

6. Identify physical space within the hospital for the storage and stockpiling of additional supplies, taking ease of access, security, temperature, ventilation, light exposure, and humidity level into consideration. Ensure an uninterrupted cold chain for essential items requiring refrigeration.

Logistics and supply management

7. Stockpile essential supplies and pharmaceuticals in accordance with national guidelines. Ensure the timely use of stockpiled items to avoid loss due to expiration.

8. Define the hospital pharmacy's role in providing pharmaceuticals to patients being treated at home or at alternative treatment sites.

9. Ensure that a mechanism exists for the prompt maintenance and repair of equipment required for essential services. Postpone all non-essential services when necessary.

10. Coordinate a contingency transportation strategy with prehospital networks and transportation services to ensure continuous patient transferal.

Tool 8: Logistic and supply management

Steps	Actions		Use these cells to write the action's output for practice
Step 1	Develop and maintain an updated inventory of all equipment, supplies and pharmaceuticals; establish a shortage-alert mechanism.	⇩	
Step 2	Estimate the consumption of essential supplies and pharmaceuticals, (e.g., amount used per week) using the most likely disaster scenarios	⇩	
Step 3	Consult with authorities to ensure the continuous provision of essential medications and supplies.	⇩	
Step 4	Assess the quality of contingency items prior to purchase; request quality certification if available.	⇩	
Step 5	Establish contingency agreements (e.g., memoranda of understanding, mutual aid agreements) with vendors to ensure the procurement and prompt delivery of equipment, supplies and other resources in times of shortage.	⇩	
Step 6	Identify physical space within the hospital for the storage and stockpiling of additional supplies, taking ease of access, security, temperature, ventilation, light exposure, and humidity level into consideration. Ensure an uninterrupted cold chain for essential items requiring refrigeration.	⇩	
Step 7	Stockpile essential supplies and pharmaceuticals in accordance with national guidelines. Ensure the timely use of stockpiled items to avoid loss due to expiration.	⇩	
Step 8	Ensure that a mechanism exists for the prompt maintenance and repair of equipment required for essential services.	⇩	
Step 9	Coordinate a contingency transportation strategy with prehospital networks and transportation services to ensure continuous patient transfer.	⇩	

Reading Materials/for more information

1. https://www.gfdrr.org/sites/default/files/publication/Sri%20lanka%20Recovery%20plan.pdf
2. https://modmr.portal.gov.bd/sites/default/files/files/modmr.portal.gov.bd/page/a7c2b9e1_6c9d_4ecf_bb53_ec74653e6d05/NPDM2021-25%20DraftVer5_23032020.pdf

Session-11: Post disaster recovery of the hospital and emergency Response Plan

Time: 45 minutes

Objectives:

After completion of the session participants will be able to:

- Explain the concept and importance of post disaster recovery of hospital and emergency response plan.
- Explain actions of post disaster recovery of hospital and emergency response plan.
- Explain and practice of tools of post disaster recovery of hospital and emergency response plan.

Steps, Contents, Time, Methods and Materials:

Steps	Contents	Time	Methods/techniques	Materials
1.	Concept and importance of post disaster recovery	10 m	Brain storming, visualized presentation and discussion	Flip sheet, marker, VIPP board, multimedia
2.	Actions of post disaster recovery	15 m	Brain storming, visualized presentation and discussion	Flip sheet, marker, VIPP board, multimedia
3.	Tools of post disaster recovery	15 m	Brain storming, discussion and Visualized presentation	Flip sheet, marker, VIPP board, multimedia
4.	Practice on tools of post disaster recovery	15 m	Group work, discussion and presentation	Vulnerability analysis tools flip sheet, marker,
5.	Sum up	05 m	Q & A and discussion	Interaction with the participants

Process:

- Greet the participants and invite them to the session to participate.
- Tell participants post disaster is the 9th component of hospital and emergency response plan.
- Ask the participants to share their ideas/thoughts about post disaster recovery and why it is important.
- Discuss with the participants by sharing the power point presentation on post disaster recovery.
- Discuss and explain with the participants about actions points of post disaster recovery.
- Discuss and explain with the participants about tools of post disaster recovery.
- Divide participants in to four groups and provide them tools of post disaster recovery and tell them to write down output against each action's points.
- Invite participants to present their group work in to planery.
- Ask if any question they have and give answer.
- Summarize and conclude the session by giving thanks to the participants for active participants.

Post disaster recovery

Post disaster recovery planning with activities for the health sector includes pre-hospital resources, hospital-based care, and out-of-hospital care delivery systems should ideally be focused on a continuum of community needs, ranging from short-term early recovery needs to long-term healthy community goals. The later goals, if properly developed, can assist communities in not only recovering from a disaster but also addressing chronic community health concerns such as access to healthcare services.

Post disaster recovery

Recovery planning is important as response planning. Recovery plans should ideally be developed prior to a disaster and implemented while the response is still underway to assist healthcare facilities and providers in returning to normal operations or establishing a new normal state. This will allow hospital authority to continue providing care to the community while also maintaining financial viability in the aftermath of a disaster.

Post disaster recovery

Post-disaster recovery planning should be performed at the onset of response activities. Prompt implementation of recovery efforts can help mitigate a disaster's long-term impact on hospital operations. Consider taking the following action.

1. Appoint a disaster recovery officer responsible for overseeing hospital recovery operations.
2. Determine essential criteria and processes for system recovery.
3. In case of damage to a hospital building, ensure that safety assessment is performed.
4. If evacuation is required, determine the time and resources needed to complete repairs and replacements before the facility can be reopened.

Post disaster recovery

5. Complete repairs and replacements before the facility can be reopened.
6. Organize a team with hospital staff to carry out a post-action hospital inventory assessment. The team must be composed of staff familiar with the location and inventory of equipment and supplies. Consider including equipment vendors to assess the status of sophisticated equipment that may need to be repaired or replaced.
7. Provide a post-action report to hospital administration, emergency managers and appropriate stakeholders that includes an incident summary, a response assessment, and an expenses report.

Post disaster recovery

8. Organize professionally conducted debriefing for staff within 24–72 hours after the occurrence of the emergency incident to assist with coping and recovery, provide access to mental health resources and improve work performance.
9. Establish a post-disaster employee recovery assistance program according to staff needs, including, for example, counselling and family support services.
10. Show appropriate recognition of the services provided by staff, volunteers, external personnel and donors during disaster response and recovery.

Tool 9: Post-disaster recovery

Steps	Actions		Use these cells to write the action's output for practice
Step 1	Appoint a disaster recovery officer responsible for overseeing hospital recovery operations.	⇩	
Step 2	Determine essential criteria and processes for incident demobilization and system recovery.	⇩	
Step 3	In case of damage to a hospital building, ensure that a comprehensive structural integrity and safety assessment is performed.	⇩	
Step 4	If evacuation is required, determine the time and resources needed to complete repairs and replacements before the facility can be reopened.	⇩	
Step 5	Provide a post-action report to hospital administration, emergency managers and appropriate stakeholders that includes an incident summary, a response assessment, and an expenses report	⇩	
Step 6	Establish a post-disaster employee recovery assistance programme according to staff needs, including, for example, counselling and family support services	⇩	
Step 7	Show appropriate recognition of the services provided by staff, volunteers, external personnel and donors during disaster response and recovery.	⇩	

Reading Materials/for more information

1. https://www.gfdrr.org/sites/default/files/publication/Sri%20lanka%20Recovery%20plan.pdf

2. https://modmr.portal.gov.bd/sites/default/files/files/modmr.portal.gov.bd/page/a7c2b9e1_6c9d_4ecf_bb53_ec74653e6d05/NPDM2021-25%20DraftVer5_23032020.pdf

Session- 12: Beneficiary awareness and engagements in response to Climate Change through Client Provider Interaction and Counseling

Time: 45 minutes

Overall Objective: To impart a common understanding of communication and the importance of establishing effective communication through which hospital providers can work towards a better relationship through appropriate and necessary communication with service recipients and make healthcare delivery easier and more effective to the patients.

Objectives:

What participants will know, say and explain from this session is-

- ✓ What and why communication is done.
- ✓ Interpersonal communication.
- ✓ Characteristics of interpersonal communication.
- ✓ Considerations in developing interpersonal communication skills.
- ✓ 4R's of communication.
- ✓ Communication barriers.

Steps, topic, time, method and materials

Steps	Contents	Time	Method/Techniques	Materials
1	What is communication and why	10 m.	Brainstorming, Slide analysis, Open discussion	Flip sheets Markers Multimedia
2	Interpersonal communication Brainstorming,	05 m.	Brainstorming, Slide analysis, Open discussion	Flip sheets Markers Multimedia
3	Characteristics of interpersonal communication	10 m.	Brainstorming, Slide analysis, Open discussion	Flip sheets Markers Multimedia
4	Considerations in improving interpersonal communication skills	05 m.	Brainstorming, Slide analysis	Flip sheets Markers Multimedia
5	Communication: The 4 R	05 m.	Brainstorming, Slide analysis	Flip sheets Markers Multimedia

Steps	Contents	Time	Method/Techniques	Materials
6	Barriers of communication	05 m.	Brainstorming, Slide analysis, Open discussion	Flip sheets Markers Multimedia
7	Session summary	05 m.	Discussion	---------------

Process:

1. **What and why of Communication, Interpersonal Communication**

   - Welcome the participants and start the session.

   - Ask participants to share their ideas about the importance of raising awareness and engaging beneficiaries in responding to emergencies through interpersonal communication.

   - Tell interpersonal communication is very important in dealing with emergency situations.

   - Share and discuss the PowerPoint presentation about interpersonal communication and its features with participants.

2. **Characteristics of interpersonal communication**

   - Ask participants to share their ideas about the characteristics of interpersonal communication. Interpersonal communication features are most important that we must keep in mind.

   - Share and discuss the PowerPoint presentation about characteristic interpersonal communication with the participants.

3. **Considerations in enhancing interpersonal communication skills**

   - Ask participants to share their ideas about interpersonal communication skills. There are some considerations in improving enhancing communication skills that we must keep in mind.

   - Share and discuss PowerPoint presentations on some of the considerations in enhancing interpersonal communication and its characteristics with the participants.

4. **4R of communication and communication barriers**

   - Ask participants to share their ideas about the 4Rs of communication. Listen to their ideas and   then share the PowerPoint presentation and discuss it.

   - Says communication barriers play a major negative role in communicating effectively. Ask participants to share ideas about communication barriers. After listening to their ideas, share the PowerPoint presentation and discuss it.

5. **Summary**

   - Summarize the session and answer any questions the participants may have

   - Summarize the entire session and end the session by thanking the participants for their active participation.

Communication

Communication is the process by which individual information, knowledge, experience, ideas and opinions can be expressed meaningfully and effectively through words, forms and gestures. Which means that communication is the process of exchange of ideas.

Why is communication made?

- Dissemination/providing of information
- Receiving information
- Making the public aware of any new issue
- Understanding each other's opinions and ideas
- Making something new acceptable to others
- Ensuring public participation on related issues.

Communication elements, types and barriers

- Ask participants what elements are needed for communication. Write their opinions on the board. Now explain the elements and types of communication.
- If possible ask someone to give a brief explanation of how the communication process works.
- After listening to their explanation give an example of the communication process that will help the participants understand the process.

For example: A provider advises a pregnant woman arriving at the clinic about family planning. The pregnant mother agreed to take the family planning method and asked what kind of method would be good for her at this time? Ask participants if all elements of communication are present.

- Say, a sender sends some information to a receiver using a medium. Feedback is the response that the receiver gives to the sender after receiving the message. When the receiver communicates something back to the sender, the receiver becomes a sender and the sender becomes a receiver.
- Now ask them about the communication style and discuss the communication style by writing on the board.
- Ask participants what are the barriers to communication? Discuss communication barriers by getting their ideas. Say, we have to continue our communication activities keeping in mind the obstacles.

Elements and process of communication

```
┌────────┐     ┌─────────┐     ┌────────┐     ┌──────────┐
│ Sender │ ──▶ │ Message │ ──▶ │ Medium │ ──▶ │ Receiver │
└────────┘     └─────────┘     └────────┘     └──────────┘
    ▲                                               │
    │            ┌──────────┐                       │
    └─────────── │ Feedback │ ◀─────────────────────┘
                 └──────────┘
```

Types of communication
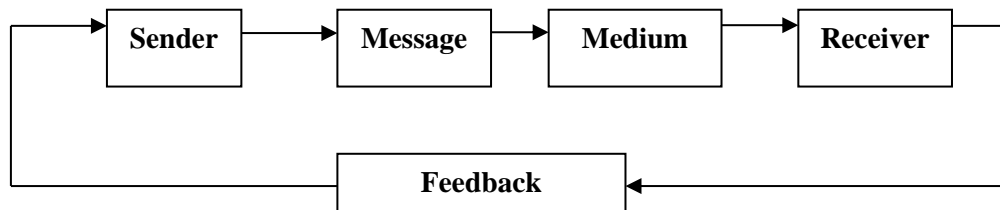
```
                    ┌───────────────┐
                    │ Communication │
                    └───────────────┘
                   ┌────────┴────────┐
          ┌───────────────┐   ┌─────────────────────┐
          │ Interpersonal │   │ Mass Communication  │
          └───────────────┘   └─────────────────────┘
                 │
         ┌───────┴────────────┐
 ┌──────────────────┐   ┌──────────────────────┐
 │ Person to person │   │ Group Communication  │
 │  communication   │   │                      │
 └──────────────────┘   └──────────────────────┘
```
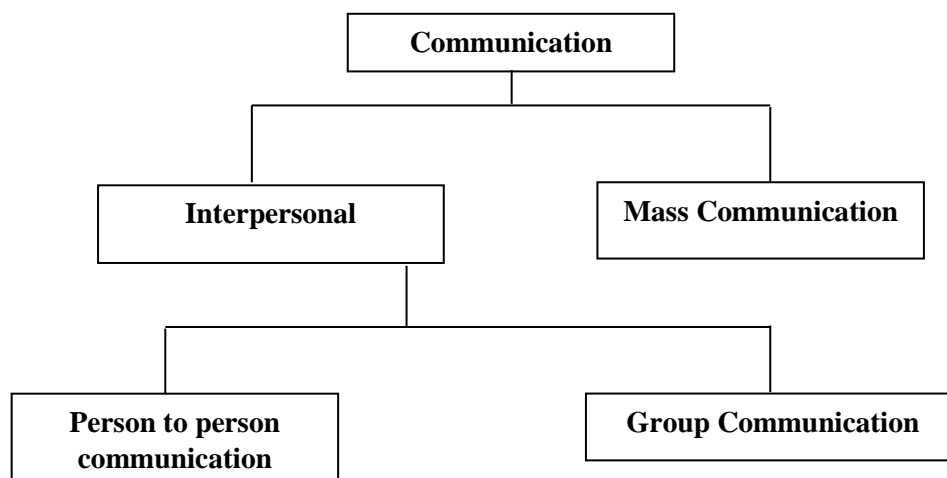
Communication between two people
Two-person communication is the type of communication where one person communicates directly with another person.

Group communication

Interpersonal communication is the communication of a person or group with another person or group. Group communication methods can be:

- Group discussion
- Group meetings
- Speech

What is mass communication?

Communication activities for everyone in the society is called mass communication. Mass communication involves the use of different types of media to reach a large group of people and disseminate information. Like- radio, TV, newspaper etc. In mass communication there is usually no direct connection between the speaker and the audience and immediate feedback is not available.

Knowing the barriers to communication and how to overcome them is essential for a good communicator.

Interpersonal Communication:

Interpersonal communication is the process of exchanging information, ideas and feelings between two or more people through face-to-face, verbal and non-verbal means.

Characteristics of interpersonal communication:

- Interpersonal communication is influenced by the person's environment, social norms, values, feelings, attitudes etc.

- Interpersonal communication involves adapting to new health behaviors and voluntarily continuing to practice health behaviors

- Interpersonal communication and counseling in health centers, among health care providers, among service recipients, and among community members is a key element in achieving the highest quality of care.

- Interpersonal communication complements the messages presented/broadcast in mass media, which reinforces and expands the message and can be used to strengthen interpersonal communication.

Factors to consider in improving interpersonal communication skills:

- Effective/active listening
- Asking questions in a way that encourages the client to talk
- Provide verbal and non-verbal encouragement
- Communicate with the client in simple language so that they can understand each other
- Provide clear, accurate and complete information
- Explanation and repetition
- Feedback

The 4 R's of Communication
R- Giving **RIGHT** message
R- To **RIGHT** person
R- Through **RIGHT** Channel
R- At **RIGHT** Time

Communication can be hindered from 3 aspects-		
Communicator	*Target* audience	*Environmental*
• age	• Mental state	• Noise/situational disorder
• Female/Male	• Reluctance	• Natural disasters
• Education	• Fear, shame	• Place of contact (eg. high/low light)
• Economic status	• I know a lot	• Arrival of a third person in the middle of the speech
• Language/words used	• Misconceptions	• Geographical location
• Knowledge of time	• Time	• Social barriers etc.
• Logistics	• Disturbance of the child	

Interpersonal communication and its characteristics:

• Ask the participants what they understand by interpersonal communication. Discuss after listening to their opinions. Ask any questions.

Factors to consider in improving interpersonal communication skills, communication and its characteristics:

• Discuss the factors to consider in improving interpersonal communication skills. Ask any questions. Finally explain the 4 R's of communication for successful communication. Make responses to any queries.

Summary:

• Summarize the session and close the session.

Session- 13: Process and steps for changing human behavior to respond for adaptation and mitigation of Climate Change.

Time: 45 minutes

Overall Objective: To be an effective communicator will help to gain and apply understanding of how human change their behavior and the process or steps it follows to develop and communicate. In this way, a hospital provider can help change the behavior of patients or potential patients receiving care in their hospital.

Objectives:

At the end of this session the participants will be able to know, understand and explain-

- ✓ To identify the stages of behavior change.
- ✓ To review the basic elements of communication.
- ✓ To describe different types or forms of communication.
- ✓ To describe communication barriers and how to overcome them.
- ✓ To describe how interpersonal communication fits into behavior change measures.

Steps, Contents, Time, Methods and Materials:

Steps	Contents	Time	Method/Techniques	Materials
1	Stages of behavior change	10 m.	Brainstorming, Slide analysis, Open discussion	Flip sheets Markers Multimedia
2	Basic elements of communication	10 m.	Brainstorming, Slide analysis, Open discussion	Flip sheets Markers Multimedia
3	Different types or forms of communication	10 m.	Brainstorming, Slide analysis, Open discussion	Flip sheets Markers Multimedia
4	Communication barriers and how to overcome them	10 m.	Brainstorming, Slide analysis	Flip sheets Markers Multimedia
5	How interpersonal communication fits into behavior change measures	5 m.	Brainstorming, Slide analysis	Multimedia

Process:

1. **Steps to change behavior**

   - Welcome the participants and start the session.

   - We need to know about the steps in communication to change people's behavior in order to communicate effectively and achieve positive results. Ask participants to share their ideas about steps to change behavior.

   - Share the PowerPoint presentation on the steps to change behavior with the participants and discuss it.

2. **Relationship between interpersonal communication and steps of behavior change**

   - Tell participants that there is a close relationship between interpersonal communication and the stages of behavior change that help to reach the final steps of behavior change quickly.

   - Share and discuss the PowerPoint presentation on the relationship between interpersonal communication and the stages of behavior change with participants.

3. **Summary**

   - Answer any questions from participants.

   - Summarize the session and end the session by thanking the participants for their active participation.

Here we discuss what communication is and how interpersonal communication fits into behavior change.

Since the creation of this world and human society, human-to-human communication has been everywhere, omnipresent, and a daily, every-moment necessity of our lives. But communication is challenging at the same time, so we can't just take this daily, every-moment need as an ongoing phenomenon, but use it effectively to achieve our goals. Again to use it effectively you have to be an effective communicator. For this we must understand the nature of communication.

Exercise: Begin this section by asking participants to think about their recent behavior changes (quitting smoking, changing their diet, starting to exercise, jogging, etc.).

Give them two VIPP cards. Have them write on one of the cards the behavior they changed and how long it took them to successfully change that behavior. On another card, ask them to write who or what motivated them to change their behavior. Ask a few volunteers if they would be willing to share their experiences. This exercise illustrates how difficult it is to change a behavior and maintain that change. This requires motivation and social support at the individual level.
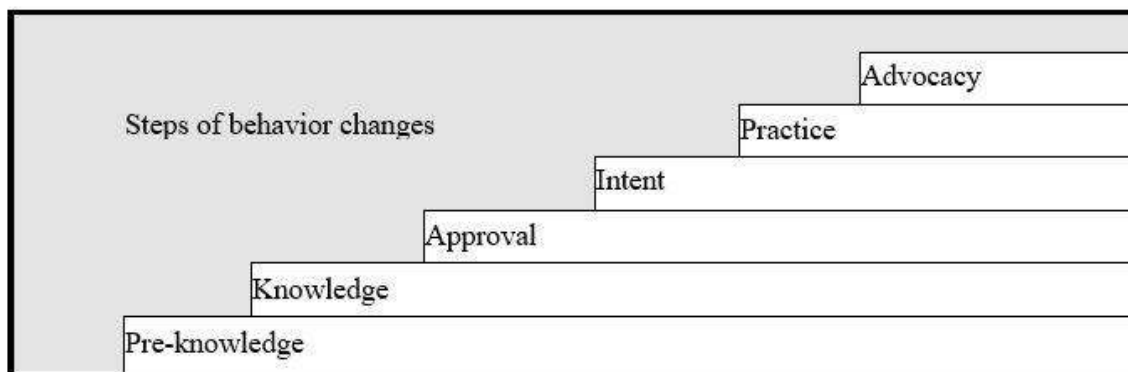
Use PowerPoint slides and lead a discussion on behavior change steps based on the facilitator's notes. Emphasize that behavior change is indeed a process.

Steps to change behavior

We cannot talk about communication for health without talking about behavior change. Behavior change is a slow process through which individuals progress through various stages. These stages do not follow a linear process that all individuals must go through when changing their behavior. Most people will follow all five stages sequentially, while some people may not follow or experience all five stages or maybe not in the same order. Sometimes, people change their behavior due to social pressure or a desire to conform to social norms, because they are personally convinced that it is the right thing to do. After practicing the new behavior, they may agree to the benefits derived from the change. This encourages them to endorse the new behavior and continue practicing it.

The 5 stages of behavior change are also referred to as steps. These 5 steps are Knowledge, Endorsement, Intention, Practice and Advocacy. In this case the first stage i.e. knowledge - also has a previous stage which is described as pre-knowledge. Pre-knowledge is that one may have heard about a new behavior but does not have enough information about that behavior. Let's use a baby safe birth plan as an example here. A woman who has not yet become pregnant may have heard others talk about a safe birth plan, but she doesn't see the relevance to herself, so she hasn't learned about it either.

Theorists suggest that there are 5 characterized steps associated with individual behavior change processes previously referred to as:

```
                                                    Advocacy
                                            Practice
                                    Intent
Steps of behavior changes
                            Approval
                    Knowledge
            Pre-knowledge
```

In fact, a person's behavior changes happens through the following 5 steps
▸ Knowledge
▸ Approval
▸ Intent
▸ Practice
▸ Advocacy

Knowledge: One first learns or knows about a new behavior

- Recalls birth plan messages
- Understand what safe birth planning means
- Can recall safe birth plan messages and pregnancy danger signs.

Approval: One then approves the new behavior

- Respond favorably to safe birth planning messages
- Discuss safe birth planning with personal network (family and friends).
- Endorses safe birth plan.

Intention: Someone then believes that the behavior is beneficial and wants to adopt it

- Recognizes that safe birth planning can meet individual needs
- Want to consult with a safe healthcare provider
- Want to practice safe birth planning anytime she is pregnant.

Practice: One then practices the new behavior

- Visit a health center or a health care provider for information/supplies/services
- Coordinates with family, local health care providers, health centers, neighborhoods
- Always have a safe birth plan for next birth.

Advocacy: As a satisfied user can promote new behaviors through their social networks

- Experience and recognize the personal benefits of safe birth planning and tell friends and family to use it.

How we frame our messages depends on which specific stage/steps of behavior change our intended audience is in.

Effective communicators will identify where their audience is in the behavior change process and what will help them move to the next step.

- Ask participants to conceptualize the link between the service provider's role and the client's behavior change. Ask them what they can do to positively impact the client at different stages.

Continue the discussion by linking communication to behavior change. As service providers, our mission is to help our clients make decisions and change their behavior. However, we cannot force anyone to change. It is helpful to understand the steps people go through when they change their behavior. Remember that knowledge alone does not lead to behavior change (how many doctors smoke, knowing full well its negative consequences on health!). There are many other factors and influences that influence behavior change.

Ask participants:

- What factors motivate people to change their thinking?
- What motivation causes people to change behavior?

Ask participants to reflect on the behavior changes they made and read their VIPP card answers about what motivated them.

For example, if participants were told that they quit smoking because their spouse or child asked them to, this would be a family network effect. If one says he started morning meditation because he knows how it helps to keep the body healthy, that would be the effect of skill - etc. If an expectant mother chooses a health center for the safe delivery of her child, she is presumed to have learned from other members of the community.

Some examples of various factors influencing behavior change are:

Physical arousal – based on a person's current physical state as well as fear of future anxiety and discomfort or memories of past pain.

Logical motivation – based on knowledge and logic. If people have information they can choose the right thing.

Emotional arousal – based on the intensity of feelings of fear, love or hope.

Competence – based on the individual's knowledge and ability to adopt and continue a new behavior.

Family and personal networks – based on the influence of family and peers.

Social structure - based on the influence of social, economic, legal and technological factors on the daily life of an individual.

Introduce and discuss the basic elements of communication. This discussion is best related to the service provider-client relationship.

Communication as a process

Ask participants why they need to communicate effectively when implementing services

- Record responses on flip charts
- Display slides with reasons for effective communication during service delivery and coordinate with responses.

Facilitator's Notes:

It is important to understand that communication is a process. This implies that communication occurs over time. Communication affects what happened in the past on what is happening now. And what happens now also affects what will happen in the future.

Communication is not a product. It is not just a brochure, a poster or a play. Effective communication activities are the result of following a road map closely.

It consists of a wide range of behaviors that include listening, reading, writing, speaking and thinking. These behaviors occur over time and often overlap with each other. While we strive for mutual understanding when we communicate, research tells us that communication is not limited; It never really ends. Research also suggests that perfect communication is difficult to achieve.

Use the slides to demonstrate the following communication principles:

- The key to effective communication is effective listening.

This is especially important during service provider-client interactions. Not understanding each other properly will greatly reduce the likelihood of effective behavior change.

Carefully frame your message. Because what people/message receivers do they choose how they:

- Watching
- Explaining
- Remember, or
- Forget it.

Must remember-

- Our actions speak most powerfully about us. When it comes to a dilemma between verbal and non-verbal, go with non-verbal. Our actions reflect our true feelings, needs and best wishes.

- Communication is a social behavior. It occurs in a social context, not in a vacuum. Therefore, effective communicators will always look for larger social influences on an individual's individual behavior.

We must remember that 'word' alone has no meaning; Meaning is/is in 3 contexts:

- ✓ people
- ✓ context
- ✓ relationship.

Some other points of contact:

- People often receive messages from multiple sources. Often, these messages conflict with each other. We must understand and help clarify these messages for our clients.

- Relationship of time and ability are important dimensions of communication.

- Communication is uncertainty reducer.

Conclusion:

We may have to exploit the opportunities presented to us to reach our goals. We just need to listen for those opportunities. We must recognize that interpersonal communication is extremely powerful and creates unique opportunities for health care providers that they can use to help others. Above all remember communication is a process so following this process is the best course of action for results.

Session- 14: Vulnerability Analysis of Loal Health Care facilities

Time: 60 minutes

Objectives:

After completion of the session participants will be able to:

- Explain importance and advantages of developing a hospital emergency response plan.
- Explain the risks and hazards. Different types of hazards.
- Explain scoring criteria of probability and impact of hazards.
- Explain and practice vulnerability analysis tools.

Steps, Contents, Time, Methods and Materials:

Steps	Contents	Time	Methods/techniques	Materials
1.	Importance and advantages of developing a hospital emergency response plan	10 m	Brain storming, discussion and visualized presentation	Flip sheet, marker, VIPP board, multimedia
1.	What is Risks and Hazards	05 m	Brain storming, discussion and visualized presentation	Flip sheet, marker, VIPP board, multimedia
2.	Different types of hazards	05 m	Brain storming, discussion and Visualized presentation	Flip sheet, marker, VIPP board, multimedia
3.	Scoring criteria of probability and impact of hazards	15 m	Brain storming, discussion and Visualized presentation	Flip sheet, marker, VIPP board, multimedia
4.	Explain and practice vulnerability analysis tools	20 m	Brain storming, discussion and Visualized presentation	vulnerability analysis tools flip sheet, marker,
5.	Sum up	05 m	Q & A and discussion	Interaction with the participants

Process:

- Greet the participants and invite them to the session to participate.
- Importance and advantages of developing a hospital emergency response plan.
- Ask the participants to share their ideas/thoughts about Importance and advantages of developing a hospital emergency response plan.
- Discuss with the participants by sharing the power point presentation on developing a hospital emergency response plan.
- Ask the participants to share their ideas/thoughts about risk and hazards.
- Discuss with the participants by sharing the power point presentation on risk and hazards.
- Discuss with participants about different types of hazards.
- Discuss with the participants about scoring criteria of probability and impact of hazards by showing PowerPoint presentation.
- Explain vulnerability analysis tools with the participants.
- Ask if any question they have and give answer.
- Summarize and conclude the session by giving thanks to the participants for active participants.

Developing a hospital emergency response plan

Without appropriate emergency planning, health systems can easily become overwhelmed in attempting to provide healthcare during emergencies. Limited resources, a surge in demand for medical services, and the disruption of communication and supply lines create a significant barrier to the provision of healthcare. To enhance the readiness of health facilities to cope with the challenges of a disaster, hospitals need to be prepared to initiate fundamental priority action.

This plan provides an all-hazards list of key actions (check list) to be considered by hospitals in responding to any disaster event. In defining the all-hazards priority action required for a rapid, effective response to a critical event.

Developing a hospital emergency response plan

This checklist aims to support hospital managers and emergency planners in achieving the following:

(1) the continuity of essential services.

(2) the well-coordinated implementation of hospital operations at every level.

(3) clear and accurate internal and external communication.

(4) swift adaptation to increased demands.

(5) the effective use of scarce resources; and

(6) a safe environment for health-care workers.

Developing a hospital emergency response plan

This tool suggested by World Health Organizations is used for the emergency response. The tool was built on previous work by the World Health Organization to assist hospitals with pandemic management[4]. The tool is structured according to nine key components, each with a list of priority actions. Hospitals experiencing an excessive demand for health services due to a critical event are strongly encouraged to be prepared to implement each action of hospital emergency preparedness and response plan effectively and as soon as it is required.

Vulnerability/Risk Analysis

It is essential to conduct a 'Vulnerability / Risk Analysis' as a part of pre disaster planning phase and capacity building activities for every staff every year. A stakeholder analysis also requires to be done in that phase. The tool presented is also a part of the annual exercise that needs to be practiced by every hospital.

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[4] Hospital preparedness checklist for pandemic influenza: focus on pandemic (H1N1) 2009

Risk and a Hazards

There is a difference between a risk and a hazard. A hazard is anything that has the potential to do harm to property, the environment, and/or people. Risk is the probability of that hazard occurring. The hospitals must be aware of and consider both as they develop the plan.

Some examples of different types of hazards are:
- Natural, man-made, or technological disasters (e.g., snowstorms, drought, cyclone, flood, riverbank erosion, fire, terrorism, a blackout etc.)
- Accidental and intentional events (e.g., a burst pipe, an active shooter)
- Internal and external events (e.g., a fire or flood)
- Controllable events and those beyond an organization's control (e.g., undiagnosed persons, a flu pandemic)
- Events with warning and those without (e.g., hurricanes vs. most earthquakes).

Considerable points for hazard assessment or vulnerability analysis.

The local health department will consider these risks and will conduct a local hazard assessment or vulnerability analysis. Although each hospital may need to make small adjustments to its assessment based on the geographic, social and natural characteristics of the area and experience.

The following table will help the hospital authorities local hazard assessment.

A simple tool is presented (Table 1) for the calculation of a healthcare center's vulnerability, where one needs to enter the probability score and the overall impact score to get the total score for any hazard. A list of hazards in each category that are of concern is provided; one may want to add one or more hazards, or describe one of the hazards in more detail, because of the local concerns. The higher the total point, the greater the overall impact of the event on the community.

Probability is the frequency at which the hazardous event occurs. The scoring criteria for probability is as below:
- 5 points: Happens annually.
- 4 points: Has happened within the past 2–5 years.
- 3 points: Has happened within the past 5–10 years.
- 2 points: Has happened over 10 years ago.
- 1 point: Has never happened before.

Overall Impact on Hospital is the impact that the hazard has caused (or could cause) in the way of physical damage to the center, staffing shortages, interruption of patient services, and/or supply disruption. The scoring criteria are:

- 5 points: Severe impact on center (has caused center to close)
- 4 points: Significant impact on center
- 3 points: Moderate impact on center
- 2 points: Minimal impact on center
- 1 point: No impact on center

Maximum & minimum total score

The maximum total score will be 25 and the minimum score will be 1. After putting a score for both probability and overall impact, the total score can be found by multiplying those. Comparing the total score of all the identified hazards, the highest risk for a hospital in an area could be known. An example is shown in Table 1.

Table 1: Risk analysis for hazards

Hazards	Probability	Overall Impact	Total Score (Probability x Overall Impact)
Natural Hazards			
Flood	5	3	15
Earthquake	1	1	1
Cyclone	3	5	15
Industrial Hazards			
Fire	2	5	10
Blackout	3	3	9
Climate Sensitive Diseases			

Tables shows the likelihood of a flood occurring is greater than a tornado. Although the impact of the tornado on the health care center would be high, it is advisable to spend more time or energy preparing for an event that happens annually, as compared to one that happens less frequently. The authority should be certain to include in the plan contingencies for any hazard that scores higher. This is not to say that those hazards that have low points should not be planned for but rather that greater emphasis should be placed on the more frequently occurring, higher impact hazards.

Reading Materials/for more information

1. https://bids.org.bd/uploads/publication/BDS/36/36-4/2_Mannan.pdf
2. https://moef.portal.gov.bd/sites/default/files/files/moef.portal.gov.bd/notices/d31d60fd_df55_4d75_bc22_1b0142fd9d3f/Draft%20NCVA.pdf
3. https://nhess.copernicus.org/articles/21/1807/2021/

4. **Session- 15: Practice session on vulnerability analysis of Local Health Care facilities**

Time: 30 minutes

Objectives:

After completion of the session participants will be able to:

- Analyzed respective local health care facilities using the vulnerability analysis tools.

Process:

- Greet the participants and invite them to the practice session on vulnerability analysis of their local health care facilities.

- Divide participants into 3-4 groups based on the number of participants. Distribute to the groups vulnerability analysis tools and tell them to fill in the vulnerability tools in group. Tell participants to keep in mind their respective workplace Upazila, district and geographical location and hazards usually occur in their areas.

- Comparing the total score of all the identified hazards, the highest risk for a hospital in an area could be known.

- Tell participants to present their filled in vulnerability analysis tools in the plenary. Emphasizes that vulnerability analysis is important prior to developing a Hospital Emergency Preparedness and Response Plan. Tell participants in the next session we will prepare a Climate Informed Hospital Emergency Preparedness and Response Plan based on a real scenario.

- Ask if any question they have and give answer.

- Summarize and conclude the session by giving thanks to the participants for active participants.

Vulnerability Analysis Tools

Hazards	Probability	Overall Impact	Total Score (Probability x Overall Impact)
Natural Hazards			
Industrial Hazards			
Human-made-hazards			
Climate Sensitive Diseases			
Others			

Session- 16: Real Scenario based Practice session on Climate Informed Hospital Emergency and Response Plan

Time: 75 minutes

Objectives:

After completion of the session participants will be able to:

- Develop Climate Informed Hospital Emergency Preparedness and Response Plan based on real scenario.

Process:

- Greet the participants and invite them to the practice session on developing climate informed hospital emergency preparedness and response plan based on real scenario.

- Divide participants into 3-4 groups based on the number of participants. Distribute three different real scenario to the groups.

- Tell them go through the scenario meticulously and prepare themselves to develop limate informed hospital emergency preparedness and response plan on the given scenario.

- Allow 35-40 minutes to develop the hospital emergency preparedness and response plan based on the nine component of a climate informed hospital emergency preparedness and response plan on which you have gathered information from the previous sessions.

- To fill in the vulnerability tools in group. Tell participants to keep in mind their respective workplace Upazila, district and geographical location and hazards usually occur in their areas.

- Tell participants to present their response in the plenary. After presentation invite participants from the other groups to provide feedback and suggestions on the plan to make the plan improved

- Ask if any question they have and give answer.

- Summarize and conclude the session by giving thanks to the participants for active participants.

Scenario-1

Flash Flood in Northeastern Bangladesh (Sunamganj, Moulavibazar and Netrokona district).

Overview of Crisis

- An estimated 7.2 million people are affected by flash flood and water congestion in nine northeastern districts of Sylhet, Sunamganj, Moulavibazar, Habiganj, Kishorganj, and Netrokona, Brahmanbaria, Mymensingh and Sherpur. More than 4 million affected people are in need humanitarian assistance. (Source: UN)

- From report of 1 August, the water levels of rivers in the northeastern regions may rise in the next 48 hours rapidly due to heavy rainfall, according to the latest flood forecast. (Source: FFWC)

- As of 31 July, 131 has died in the floods according to DGHS. Death tool expected to be increased if proper planning is not in place.

- Two rounds of flood have caused extensive damage to roads and bridges in Sylhet division, disrupting road communication and causing suffering to people. (Source: News)

- According to a joint estimate by the Roads and Highways Department (RHD), the Local Government Engineering Department (LGED) and Sylhet City Corporation (SCC), a total of 1,600 kilometers of roads and have been damaged in this year's flooding in the Sylhet region, which is worth Tk 21 billion. (Source: News)

- There is also risk of landslides occurring due to the continued rainfall making the soil loose and prone to landslide. There have been multiple reports of landslides in Juri upazilla of Moulavibazar and adjacent areas. (Source: Newspaper)

- The incident caused great panic among the residents. Some of them had left the area for good.

Group Task:

Prepare a Hospital Emergency Preparedness and Response Plan considering the nine component of the "**Climate Informed Hospital Emergency Preparedness and Response Plan**"

Scenario -2

Dengue Situation at a glance

From 1 January to 7 August 2023, the Ministry of Health and Family Welfare of Bangladesh reported a total of 69 483 laboratory-confirmed dengue cases and 327 related deaths, with a case fatality rate (CFR) of 0.47%. Of these, 63% of cases and 62% of the deaths were reported in the month of July 2023. Although dengue is endemic in Bangladesh, the current dengue surge is unusual in terms of seasonality and the early sharp increase in comparison to previous years, where the surge started around -late June. The CFR so far this year is relatively high compared to previous years for the full-year period. The pre-monsoon *Aedes* survey shows that the density of mosquitoes, and the number of potential hotspots is at the highest level in the past five years.

The higher incidence of dengue is taking place in the context of an unusual episodic amount of rainfall, combined with high temperatures and high humidity, which have resulted in an increased mosquito population throughout Bangladesh. (WHO, 11 August, 2023)

Description of the outbreak

Between 1 January and 7 August 2023, a total of 69 483 dengue cases including 327 related deaths (case fatality rate = 0.47%) were reported by the Ministry of Health and Family Welfare (MOHFW). As of 30 June 2023, a total of 7978 cases and 47 deaths were reported, however, the cases started surging rapidly from late June and in the month of July alone 63% of cases (n=43 854) and 62% of deaths (n= 204) were reported.

The number of cases and deaths are higher compared to similar periods in the past five years. Dengue cases started to rise in May 2023 and have been continuing since then, and the peak is unlikely to have been reached. The reported number of dengue cases this year is the highest compared to the same periods recorded since 2000.

The cases are reported from all 64 districts in the country. Cases in Dhaka division started to increase in epidemic week 17 (23-29 April 2023) and in all eight divisions since epidemic week 26 (25 June to 1 July 2023). The most affected area in the Dhaka division is Dhaka city corporation, accounting for 52.8% of cases and 78.9% of deaths. Other affected divisions include Chattogram division (13.2% of cases and 9.2% of deaths), Dhaka division excluding Dhaka city (11.6% of cases and 2.8% of deaths), and Barisal division (10.5% of cases and 4.3% of deaths). The Sylhet division has the lowest number of cases (560) and no deaths reported so far.

As of 11 September 2023, the Directorate General of Health Services (DGHS) has reported 151,272 hospitalizations and 741 deaths due to the Aedes mosquito-borne tropical disease in the 2023 outbreak year.

This is more than 23 times higher than the 4,345 cases reported over a similar period in 2022. Dhaka (51,538 cases) is the most affected division, reporting the highest disease activity. Other areas reporting high disease activity include the Chattogram, Barisal, and Sylhet divisions. Aug 21, 2023

Group Task:

Prepare a Hospital Emergency Preparedness and Response Plan considering the nine component of the **"Climate Informed Hospital Emergency Preparedness and Response Plan"**

Scenario-3

The very severe cyclonic storm Amphan-2

According to Bangladesh Meteorological Department (BMD)'s special weather bulletin dated 01 October 2023, the 'super cyclone' Amphan -2 was lying over west central Bay and adjoining area and it was forecasted likely to move in a north-easterly direction and may cross Bangladesh coast between Khulna-Chattogram during late night of 01 October to afternoon/evening of 02 October. The BMD issued "great danger" signal number 10 for costal districts of Satkhira, Khulna, Bagerhat, Jhalokathi, Pirojpur, Borguna, Patuakhali, Bhola, Barisal, Laxmipur, Chandpur and their offshore islands and chars. Following the great danger signal and evacuation order of the Government of Bangladesh (GoB), more than 2.4 million people were moved to 14,636 permanent and temporary shelters in 19 coastal districts before the cyclone hit the country's coast.

Group Task:

Prepare a Hospital Emergency Preparedness and Response Plan considering the nine component of the **"Climate Informed Hospital Emergency Preparedness and Response Plan"**