2. TOOLS

2.12. National Programme for Emergency Preparedness, Health Sector

   Conceptual Framework


Overhead Transparencies

2.12.2. Co-ordination
2.12.3. Technical Programmes
2.12.4. Master Contingency Plan
2.12.5. Technical Procedures, Mass Casualty Management
2.12.6. Technical Procedures, Epidemiology and Disease Control
2.12.7. Technical Procedures, Nutrition
2.12.8. Technical Procedures, Environmental Health
2.12.9. Technical Procedures, Health in Temporary Shelter and Displaced Camps
2.12.10. Training and Research
2.12.11. Resources and Logistics
2.12.12. Essentials for Contingency and Preparedness Planning for the Health Sector, Summary
2.10. National Programme for Emergency Preparedness, Health Sector, Conceptual Framework

Trainers' Guide

Objective: To illustrate in detail and to introduce the range of different capacities (rules, information, resources, institutions) which are needed for good emergency management. (Knowledge/Attitudes)

Key-message: Preparedness and planning for it are complicated, complex and difficult.


This is the basic frame. Explain boxes 1, 2, and 3. The points 3.1. to 3.4. will be developed in the next OHTs. The OHTs are complex but self-explanatory.

2.12.2. Co-ordination

2.12.3. Technical Programmes: Master Contingency Plan and Technical Procedures

Special contingency plans need to be prepared for each specific hazard. Technical procedures have to be decided for and/or developed and taught.

2.12.4. Master Contingency Plan

2.12.5. Technical Procedures, Mass Casualty Management

2.12.6. Technical Procedures, Epidemiology and Disease Control

2.12.7. Technical Procedures, Nutrition

2.12.8. Technical Procedures, Environmental Health

2.12.9. Technical Procedures, Health in Temporary Shelter and Displaced Camps

2.12.10. Training and Research

Exhaustive plan of all levels of training that can be tackled.

2.12.11. Resources and Logistics
Exhaustive plan of components of resources and logistics essential for emergency preparedness.

2.12. 12. Essentials for Contingency and Preparedness Planning for the Health Sector,

Summary

Two pages showing a crowded table. It is best to hand out a copy and show a summary page as OHT explaining the use of the table. Capacities needed, 1. Capacity building through training of technical subjects of the health sector and 2. Support: all other ways of capacity building, i.e. inter-sectoral collaboration, specific training, etc.


Hand out a copy.

Stand-alone. Reference. Attention, to be used only with very small and very motivated audience.

Essential Reading:
- UN-DMTP Training Modules, UN-UDMTP, 1990

**National Programme for Emergency Preparedness**

**Conceptual Framework**

1. **General country profile**
   - Health Profile

2. **Inter-sectoral legal framework**
   - Health Profile

3. **Institutional capacity of the Natural Health System**
   - Sectoral capacity & capabilities for Emergency Management

3.1. Co-ordination
3.2. Technical programmes
3.3. Training and research
3.4. Resources and Logistics

**General description**

Basic indicators:
- geographic
- social
- cultural
- economic
- demographic
- land use
- urbanism

**Disaster profile**
- main hazards
- main factors of vulnerability
- past disasters
- performance of emergency services

**Main health hazards**
- mortality & morbidity by disasters
- past performance of health sector

- **Acts, Laws & Bills for Disaster Prevention & emergency management**
- National policies and strategies
- Signature of International Conservation and Resolutions
- Institutions/structures for Civil Protection Disaster Prevention and/or Emergency Management
- Campaigns for Public Awareness
- Allocation of State Budget
- Mention of Ministry of Health in National Preparedness Plan

a.) **Analysis of the Health Sector: Policies & Strategies**
- Budget
- Personnel
- Network
- Programmes
- Operational indicators

b.) **Health Emergency management:**
- mandate
- structure
- levels of responsibility
- operational capacity
- record of performance
- budget
2.12.2. Co-ordination

Intra-sectoral
- Different MOH departments
  - Political
  - Technical
  - Administrative
- National NGOs / Community leaders
- Army medical corps
- Private health services

Inter-sectoral
- Civil defense
- Home affairs (Police)
- Foreign affairs
- Local government
- Finance
- Communications
- Public works
- Social affairs
- Commerce
- Food security
- Technical services:
  - agriculture, land
  - water
  - meteorology
- Media

International
- Neighboring countries
- Regional institutions
- United Nations
- Embassies/bilateral agencies
- International NGOs

DEFINE:
- Level of co-ordination
- Liaison officers
- Activities that will be implemented jointly in the various phases
- Procedures for the mobilization of internal resources
- Strategy for the mobilization and co-ordination of external assistance (emergency Appeals)

3.1. Co-ordination (MOH Emergency cell)
2.12.3. Technical Programmes

3.2.1. Master contingency plan

3.2.2. Technical procedures

3.2.2.1. Casual management

3.2.2.2. Epidemiology and disease control

3.2.2.3. Nutrition

3.2.2.4. Environmental Health

3.2.2.5. Health management of temporary shelter

Special plans

Epidemics of infectious origin

Other Natural Emergencies

Technological Emergencies

Complex Emergencies

Major Public Functions
2.12.4. Master Contingency Plan

Contingency Planning
- Worst-case scenarios
- Planning on the basis of Country/Aria history and global trends
- Hazard mapping and Risk assessment
- Specificity and Sensitivity of information systems
- Early-warning indicators and cut-off values
- Containing the crisis
- Management of individual and mass casualties
- Objectives, timetable. Tasks, responsibilities and resources
- Vulnerability of health network and systems

Reduction of Hazards and of Vulnerabilities

Procedures for Activation of Plan
- Activation of center of command & Teams
- Rapid need Assessment
- Mobilization of resources
- Deployment of resources
- Technical procedures
- References systems
- Coordination of operations
- Information systems and reporting procedures
- Media management and information

Epidemics of infectious origin
- Diseases known to have occurred
- New Emerging Diseases

Emergencies by Other Natural Causes
- Mass Food Poisoning by Natural causes
  - Drought
  - Floods
  - Cyclone
  - Tidal Surge & Tsunami
    - Earthquake
    - Landslide
    - Volcanic Eruption
    - Bush fire

Technological Emergencies
- Transportation incident
- Fire in Human Settlement
  - Industrial explosion, fire or spill
  - Collapse of Man-made structure
  - Failure of Lifeline Systems
  - Mass Food Poisoning by Human Causes

Complex Emergencies
- Armed conflict
- Mass Labour Unrest
- Terrorist Attack
- Refugee/Displace Influx

Major public functions
- State visit
- Pilgrimage
- Large scale entertainment

3.2.1. Master contingency plan

Special Plans

Emergencies by Other Natural Causes

Epidemics of infectious origin
2.12.5. Technical Procedures, Mass Casualty Management

3.2.2. Technical procedures

3.2.2.1 Mass Casualty Management

Chain of Command
- Mandates/responsibilities
- Role of Health services
- Gold, Silver, Bronze
- Information management
- Media management

Security
- Access
- Communications
- Special procedures
- Special procedures
- Collection of evidence investigations

Pre-Hospital

Search and rescue
- Tasks
- Methods/procedures
- Resources
- Identifications of victims

Triage
- Training
- Vital signs
- Tagging criteria

First Aid on-site medical care
- Medical rescue chain
- Inventory of resources
- Chain of command

Evaluation
- Resources
- Routes
- Destinations

Hospital
- Chain of authority
- Hospital capacity
- Accessibility
- Personnel, equipment, supplies
- Support services
- Lifeline systems
- Record-keeping
- Information for the Public

- Hazards & Hospital Vulnerability assessment
- Hospital preparedness plan
- Training/information of staff
- Roster of staff; Duty roster, call roster
- Drills and simulations
- Updating the Plan
2.12.6. Technical Procedures, Epidemiology and Disease Control

- Epidemiology of disasters
- Notifiable conditions and case-definitions
- Community-based records
- Support and reference laboratories
- Access to H. services
- Data base & series
- Health Info. System
- Transmission/processing
- Cut-off values for Morbidity & Mortality
- Notifications/bulletins

- Roster of experts
- Stockpiles
- Roster of manufacturers
- WHO guidelines
- Field teams
- Decentralization of resources/authority
- Mass control measures
- Case management
- Vulnerability of health network

- Specific drugs
- Vector control
- Self-kept records
- Contingency plans

- Mostly local planning:
  - Type of hazard
  - Population at risk
  - Special resources
  - Reference centres
  - Hazard awareness
  - Political/public attitudes

- Availability of information for Contingency Planning
- Political acceptability of Scenario-setting

3.2.2. Technical procedures

3.2.2.2. Epidemiology and disease control

- Epidemiological surveillance
- Early warning
- Monitoring

- Natural disasters

- Operations

- Technological disasters

- Systems to be set in place according to specific risk-assessment

- Complex emergencies
- Major Public Functions

- Endemic control in emergency situations

- Epidemic control

- Public health

- Early warning
2.12.7. Technical Procedures, Nutrition
2.12.8. Technical Procedures, Environmental Health

3.2.2 Technical procedures

3.2.2.4 Environmental Health

Water supply
- Co-ordination with Disease Control
- Technical inter-sectoral liaisons
- Health emergency standards
- Inventory of resources
- Vulnerability assessment
- Contingency plans
- Supplies for treatment:
  - Stockpiles
  - Local market/manufactures
- Logistics

Water supply
- Contingency plans
- Emergency standards
- Inventory of resources
- Technical liaisons
- Local materials
- Sustainable technologies

Environmental pollution
- Assessment and map of hazards
- Health/environmental education
- Equipment
- Mandate/authority
- Indicators & cut-off values
- Roster of experts
- References centres
- Technical liaisons

Food safety
- Legal & technical standards
- Experts
- Reference centres
- Procedures for quality control
- Enforcement
2.12.9. Technical Procedures, Health in Temporary Shelter and Displaced Camps

3.2.2.5 Health in temporary shelter and displaced camps

- Selection of site
  - Site planning
  - Length of accommodation

- Advocacy
  - Security
  - Accessibility
  - Water
  - Vital space
  - Health referral systems
  - Host communities

- Inventory
  - Temporary/transit centres
  - Accommodation centres

- Health/nutrition screening on entry
  - Triage
  - Measles vaccination
  - Vitamin supplementation
  - Health information
  - Disease surveillance & control
  - Immunizations
  - MCH & Reproductive Health
  - Essential drugs
  - Nutrition
  - Water & sanitation
  - Health education
  - Community H. workers

- On-going Primary Health Care
  - Figures, trends & demographic structure
  - Mortality, Heath & nutrition data must enter H. Info. System
  - Health infrastructures
  - Cold chain
  - Personnel
  - Drugs & materials
  - Support & materials
  - Volunteers
  - NGOs

- Plans for resettlement
  - Security
  - Registry of population
  - Death registry
  - Supervision of burial site
  - Food: rations, production, commerce
  - Water
  - Fuel, household kits, soap
  - Shelter, blankets
  - Latrines, waste dumps

- Referral system
  - Information on availability of referral facilities
  - Access to communications and transport

- Day-to-day management
  - Liaisons with responsible bodies: Local authorities, Education, Defense, etc

Selection of site

- Advocacy

Inventory

Temporary/transit centres

Accommodation centres

Health/nutrition screening on entry

On-going Primary Health Care

Referral system
2.12.10. Training and Research

3.3. Training and research

- General awareness building
  - Integrate Health issues in general Disaster awareness campaigns
  - Integrate Disaster awareness in Health education
  - Media
  - IDNDR day
  - Schools

- Training
  - Medical schools
  - Post-graduation courses
  - Professional training
  - On-the Job training
  - Supervision
  - Civil Defense
  - National NGOs
  - United Nations
  - Private sector
  - Others
  - Type and contents of training
  - Duration
  - Frequency
  - Audience
  - Methods
  - Inter-sectoral participation and collaboration
  - Roster of trainees

- Technical aids
  - Manuals
  - Simulation exercises
  - Others: videos, etc…
  - Audience
  - Format
  - Contents
  - Production
  - Distribution

- Case studies
  - Research institutions
  - Protocols
  - Presentation/circulation
  - Institutional memory

- Integrate Health issues in general Disaster awareness campaigns
  - Integrate Disaster awareness in Health education
  - Media
  - IDNDR day
  - Schools

- Type and contents of training
  - Duration
  - Frequency
  - Audience
  - Methods
  - Inter-sectoral participation and collaboration
  - Roster of trainees
2.12.11. Resources and Logistics

3.4. Resources and Logistics

- Preparedness
- Ordinary funds:
  - National
  - External
- Emergency funds:
  - National
  - External

- Resources and Logistics
- Sectoral advocacy
- Preparedness advocacy
- Liaisons with
- Ministry of Finance
- External assistance
- Special line for contingencies
- Special procedures
- “Contingency projects”
- Donor’s procedures
- Lead time

- Personnel
- Full-time
- Part-time
- National NGOs
- Volunteers
- International NGOs
- National level
- Intermediate level
- District level
- Local level

- Medical Rescue & Care
  - Ambulances, etc.
  - Intensive Care Units
  - Special Care Units

- Transmissions and liaisons
  - Phone/Fax
  - Radio
  - Pouch
  - Electronic Mail
  - Satellite

- Emergency stockpiles

- Mobilization
  - Emergency procedures

- Deployment
  - Warehousing
  - Transports

- Equipment

- Budget

- Response
- Preparedness

- Revolving stocks
- Warehousing
- Shelf-life
- Decentralization

- Authority
- Accountability

- Sectoral capacity
- Other sectors
- Public services
- Private sector

WHO/EHA/EHTP Draft 1 - 1999
## Essentials for Contingency Planning and Preparedness Planning for the Health Sector

<table>
<thead>
<tr>
<th>Type of Emergency</th>
<th>Primary Hazard</th>
<th>Primary Causes of Death &amp; Illness</th>
<th>Main Responsibility of the Health Sector</th>
<th>Risk to Health Network</th>
<th>Capacities Needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Epidemics of Infectious Origin</td>
<td>Known disease</td>
<td>Agent-specific</td>
<td>Alert &amp; Assessment, Case management, Outbreak control</td>
<td>+</td>
<td>Epidemiology &amp; Disease control, Medical/Nursing care, Environmental health,</td>
</tr>
<tr>
<td>Emergencies by Other Natural Causes</td>
<td>Floods</td>
<td>Drowning, Trauma, Diarrhoea, ARI, Vector-borne diseases</td>
<td>Search &amp; Rescue, Triage, Need assessment, Disease control, Assistance in temporary shelter</td>
<td>+</td>
<td>Mass casualty management, Environmental health &amp; Vector control, Health care in temporary shelter</td>
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<tr>
<td>Emergencies from Technological Causes</td>
<td>Transport Incident (Road, railways, air, sea etc.)</td>
<td>Trauma, Drowning, Burns, Suffocation</td>
<td>Search &amp; Rescue, Triage, Casualty Management</td>
<td>+</td>
<td>Mass casualty management</td>
</tr>
<tr>
<td>Complex Emergencies</td>
<td>Armed Conflict</td>
<td>Trauma, Malnutrition, ARI, Diarrhoea, Measles, Meningitis, Vector-borne Diseases</td>
<td>Need assessment &amp; advocacy, Disease control, Nut. surveillance &amp; Selective feeding, Injury management</td>
<td>+++</td>
<td>Epidemiology &amp; Disease control, Nutrition, War surgery, Health care in temporary shelter</td>
</tr>
<tr>
<td>Major Public Functions</td>
<td>Pilgrimage</td>
<td>Epidemic diseases, Illness among spectators, Crowd incidents (stampede etc.)</td>
<td>Disease control, Readiness for crowd incidents, Back-up for increased demand</td>
<td>-</td>
<td>Epidemiology &amp; Disease control, Environmental health, Mass casualty management</td>
</tr>
</tbody>
</table>

**Technical Support**
- Communications, Laboratory facilities & supplies, Inter-sectoral collaboration, Funds
- Special training for staff & volunteers, Inter-sectoral collaboration, Co-ordination of relief
- Intensive care facilities
- Special agreements & procedures, War surgery facilities/capacities, Safe transfusion facilities, Co-ordination, International aid
- Intensive care facilities, Temporary outreach facilities
### Essentials for Contingency Planning and Preparedness Planning for the Health Sector

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<tr>
<td>Epidemiology of infectious Origin</td>
<td>Known disease</td>
<td>Agent-specific</td>
<td>Alert &amp; Assessment, Case management, Outbreak control</td>
<td>+</td>
<td>Epidemiology and Disease control, Medical/Nursing care, Environmental health, Communications, Laboratory facilities &amp; supplies, Inter-sectoral collaboration, Funds</td>
</tr>
<tr>
<td>New Emerging Disease</td>
<td>Agent-specific</td>
<td>Alert &amp; Assessment, IDENTIFICATION OF AGENT Case management, Outbreak control</td>
<td>+++</td>
<td>As above, plus field research, crash training of personnel, new, specific health education possibly Cordon Sanitaire As above, plus access to more sophisticated Reference Centers, greater capacity for Isolation, special drugs or vaccines</td>
<td></td>
</tr>
<tr>
<td>Emergencies by Other Natural Causes</td>
<td>Mass Floods Poisoning by nature causes</td>
<td>Agent-specific</td>
<td>Assessment identification of cause case management information and education</td>
<td>–</td>
<td>Epidemiology Medical/Nursing care Education Communication, Logistics and Funds for Outreach. Supplies inter-sectoral collaboration and coordination of relief</td>
</tr>
<tr>
<td>Drought</td>
<td>Diarrhoea, Malnutrition, Any other cause, by decreased access to health services and higher vulnerability</td>
<td>Need assessment disease control Nutritional surveillance</td>
<td>+</td>
<td>Epidemiology Disease control, Nutrition. Communication, Logistics &amp; Funds for Outreach. Supplies Inter-sectoral collaboration and coordination of relief</td>
<td></td>
</tr>
<tr>
<td>Floods</td>
<td>Drowning, Trauma, Diarrhoea, ARI, Vector – borne diseases</td>
<td>Search &amp; Rescue/Triage Need assessment Disease Control Assistance in temporary shelters</td>
<td>+</td>
<td>Mass Casualty Management Env. Health/Vector Control Health Care in temporary shelters Special training for staff and volunteers Inter-sectoral collaboration and coordination of relief</td>
<td></td>
</tr>
<tr>
<td>Cyclone</td>
<td>Trauma, Drowning, Diarrhoea, ARI, Vector – borne diseases</td>
<td>Same as above</td>
<td>+ +</td>
<td>Same as above Same as above</td>
<td></td>
</tr>
<tr>
<td>Tidal Surge and Tsunami</td>
<td>Drowning, Trauma, Diarrhoea, ARI, Vector – borne diseases</td>
<td>Same as above</td>
<td>+</td>
<td>Same as above Same as above</td>
<td></td>
</tr>
<tr>
<td>Earthquake</td>
<td>Trauma, Suffocation, Burns</td>
<td>Search &amp; Rescue/Triage Need assessment Casualty management Assistance in temporary shelters</td>
<td>+ + +</td>
<td>Mass Casualty Management Health Care in temporary shelters Intensive Care facilities Hospital vulnerability assessment and reduction</td>
<td></td>
</tr>
<tr>
<td>Landslide</td>
<td>Trauma, Suffocation</td>
<td>Same as above</td>
<td>+</td>
<td>Same as above Same as above</td>
<td></td>
</tr>
<tr>
<td>Volcanic Eruption</td>
<td>Trauma, Suffocation, Burns, Acute Respiratory Distress</td>
<td>Need assessment Casualty management Assistance in temporary shelters</td>
<td>+</td>
<td>Mass Casualty Management Health Care in temporary shelters Intensive Respiratory Care Unit</td>
<td></td>
</tr>
<tr>
<td>Bush Fire</td>
<td>Burns Trauma, suffocation</td>
<td>Same as above</td>
<td>–</td>
<td>Same as above Burns Care facilities</td>
<td></td>
</tr>
</tbody>
</table>

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</thead>
<tbody>
<tr>
<td>Emergencies from Technological Causes</td>
<td>Transport Incident (road, railways, air, sea, etc.)</td>
<td>Trauma, Drowning, Burns, Suffocation</td>
<td>Search &amp; Rescue/Triage Casualty Management</td>
<td>+</td>
<td>Mass Casualty Management</td>
</tr>
<tr>
<td></td>
<td>Fire in Human Settlement</td>
<td>Burns, Trauma, Suffocation</td>
<td>Search &amp; Rescue/Triage Casualty Management</td>
<td>+++</td>
<td>Mass Casualty Management</td>
</tr>
<tr>
<td></td>
<td>Industrial Explosive, fire, Spill, Radiation</td>
<td>Blast, trauma, Burns, Acute respiratory Distress, Suffocation, Agent-specific</td>
<td>Search &amp; Rescue/Triage Casualty Management</td>
<td>+</td>
<td>Mass casualty Management</td>
</tr>
<tr>
<td></td>
<td>Collapse of man-made Structure</td>
<td>Trauma, Suffocation, Drowning, other, according to type of structure</td>
<td>Search &amp; Rescue/Triage casualty Management</td>
<td>+++</td>
<td>Mass casualty Management</td>
</tr>
<tr>
<td></td>
<td>Failure of Lifeline Systems</td>
<td>Any cause, by lack of critical support care</td>
<td>Prompt back-up Casualty Management</td>
<td>+++</td>
<td>Mass Casualty Management</td>
</tr>
<tr>
<td></td>
<td>Mass Food Poisoning by Human Causes</td>
<td>Agent-specific</td>
<td>Alert and Assessment</td>
<td>+</td>
<td>Epidemiology Specific Medical/Nursing care</td>
</tr>
<tr>
<td></td>
<td>Complex Emergencies</td>
<td>Armed Conflict</td>
<td>Trauma, Malnutrition, ARI, Diarrhoea, Measles, Meningitis vector-borne diseases</td>
<td>Need Assessment 7 Advocacy Disease control Nut. Surveillance &amp; Select feeding Injury Management</td>
<td>+++</td>
</tr>
<tr>
<td></td>
<td>Mass Labour Unrest</td>
<td>Trauma, Any cause by lack of critical support care</td>
<td>Mass casualty Management</td>
<td>+</td>
<td>Mass Casualty Management</td>
</tr>
<tr>
<td></td>
<td>Terrorist Attack</td>
<td>Blast, Trauma, Fire, Suffocation, Acute Resp. Distress, Other specific (e.g. Toxic gas)</td>
<td>Mass Casualty Management</td>
<td>-</td>
<td>Mass Casualty Management</td>
</tr>
<tr>
<td></td>
<td>Refugee/Displaced Influx</td>
<td>Diarrhoea, ARI, Malnutrition, Measles, Meningitis, Vector-borne diseases</td>
<td>Diseases control Nut. Surveillance &amp; Select feeding Assistance in camps/transit points</td>
<td>-</td>
<td>Epidemiology &amp; Diseases Control nutrition Health care in temporary shelters</td>
</tr>
<tr>
<td></td>
<td>Major Public Functions</td>
<td>State Visit</td>
<td>Any illness of state guests illness among spectators crowd incidents (stamped, etc.)</td>
<td>Back-up for possible special, high-profile medical emergency readiness for crowd incidents</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Pilgrimage</td>
<td>Epidemic diseases illness among spectators Crowd incidents (stamped, etc)</td>
<td>Disease Control Readiness for crowd incidents back-up for increased demand</td>
<td>-</td>
<td>Epidemiology &amp; Disease control, Environmental Health Mass casualty Management</td>
</tr>
<tr>
<td></td>
<td>Mass Entertainment</td>
<td>Illness among spectators Crowd incidents (stamped)</td>
<td>Back-up for increased demand readiness for crowd incidents</td>
<td>-</td>
<td>Mass Casualty Management</td>
</tr>
</tbody>
</table>

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**Technical Support**

- Hospital vulnerability assessment and reduction
- Back-up systems
- Special Decontamination facilities Access to special Reference Centre