Medical Management of Disasters

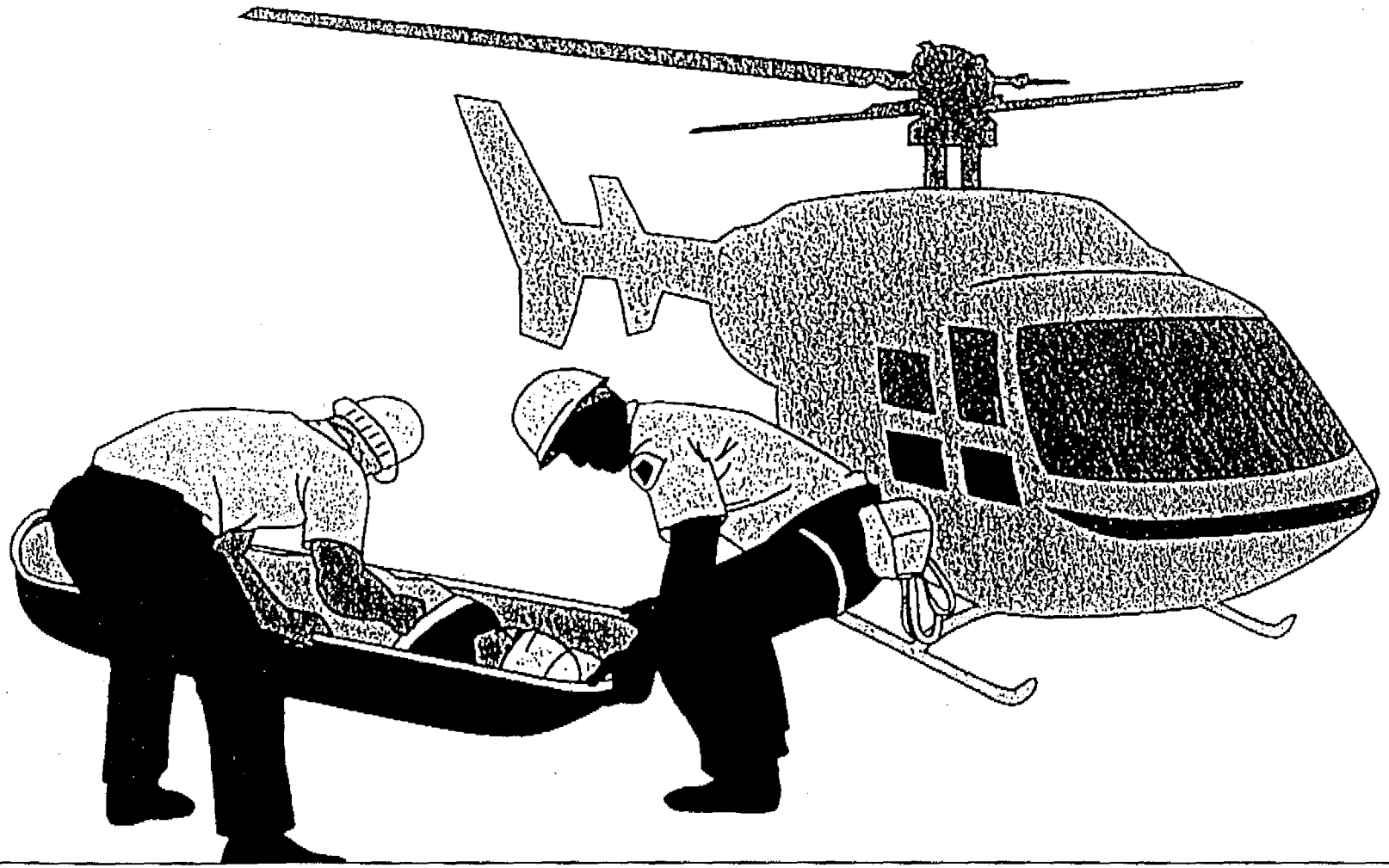
Instructors Course

Third Triage

1. Stress the fact that the Third triage is done by the AMP manager
2. Introduce the Third Triage card
3. Introduce the Evacuation Officer and his role
4. Introduce the Transport Officer and his role
5. Explain the Noria Principle

Pan American Health Organization

Medical Management of Disasters



EVACUATION

Medical Management of Disasters
Evacuation

Evacuation Officer

Paramedic / EMT or Physician

Trained in Mass Casualty Management

Skilled in medical transport / evacuation

Sound knowledge of Health Care facilities

Sound knowledge of transport management

Medical Management of Disasters
Evacuation

Functions of the Evacuation Officer

- Receives victims for evacuation
- Assess victim's stability
- Assesses security if equipment
- Ensures immobilization is adequate
- Ensures tags are safely and clearly attached
- Maintains observation of victim until dispatch
- Supervises loading of victim
- Reports to AMP manager

Medical Management of Disasters
Evacuation

Principles of Evacuation

- Strict Control of the rate of evacuation
- Victim must be in the most stable condition possible before moving
- Victim must be adequately equipped for the transfer
- Receiving facility must be informed and prepared for transfer
- The best possible vehicle must be used

Medical Management of Disasters
Evacuation

Preparation for Evacuation

1. Assess Stability: After Adequate Treatment

Monitor:

- Blood Pressure
- Breathing/Ventilation,
- Haemostasis

Any abnormality must be reported to AMP Manager

Medical Management of Disasters

Evacuation

Preparation for Evacuation

2. Assess security of Equipment:

- Check tubes for correct positioning and ability to remain attached during transport
- Ensure monitors and other devices are functioning
- Ensure immobilization is adequate
- Ensure adequate oxygenation / fluids

Medical Management of Disasters

Evacuation

Preparation for Evacuation

3. Health Care Facility

- Should inform Command Post of its capabilities
- Must be prepared to receive victims
- Must be given pertinent information before transportation
- Must give permission before victim is transported

Medical Management of Disasters

Evacuation

Preparation for Evacuation

4. Communications

Single Hospital: AMP -> CP-> Hospital AMP

or

AMP -> Hospital AMP

Multiple Hospitals: AMP-> CP-> Hospital AMP

Medical Management of Disasters

Evacuation

Preparation for Evacuation

5. Transport:

- Ambulance
- Bus
- Flat bed Truck
- Car

Medical Management of Disasters

Evacuation

Preparation for Evacuation

6. Escort:

- Doctor
- Nurse
- First Aid Volunteer
- None

TRANSFER PROCEDURES

DEFINITION

- CONTROLLED EVACUATION PROCEDURES
- TO ADAPTED AND PREPARED TO RECEIVE HEALTH FACILITIES
- USING ADAPTED TRANSPORT RESOURCES

Medical Management of Disasters

Transport

Transport Officer

- Fire Officer /Police Officer /Ambulance Service Officer
- Trained in Mass Casualty Management
- Skilled in Ambulance traffic control
- Skilled in Radio communications
- Sound knowledge of country's transport resources
- Sound knowledge of access routes to Health Care Facilities

Medical Management of Disasters
Transport
Transport Officer

- Maintains observation of victim until transported
- Supervises loading and ensures escort is briefed
- Maintains a log of all traffic
- Maintains communications with AMP manager, Command Post Transport Officer and Emergency Room

Medical Management of Disasters

Transport

Transport Officer

- Receives Victims for evacuation
- Assesses the victim's stability
- Assesses the security of attached equipment
- Ensures adequate immobilization
- Ensures tag is securely attached

TRANSFER DECISIONS

- Time patients transportation.
- Transport salvageable patients first.
- Transport seriously injured after IVs and tubes have been placed
- Transport patients in adequate vehicles
- Transport patients with adequate escort staff.

VICTIMS FLOW

A "Conveyor Belt" Management

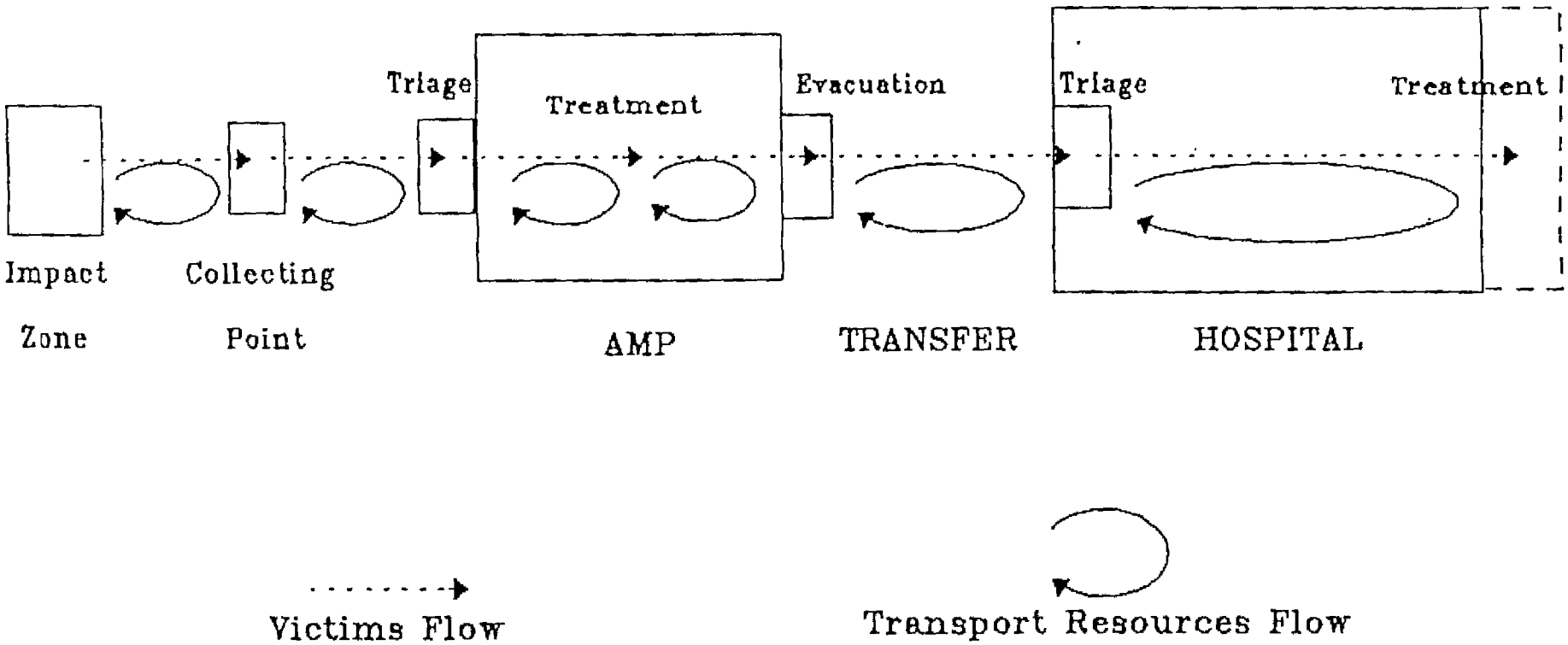
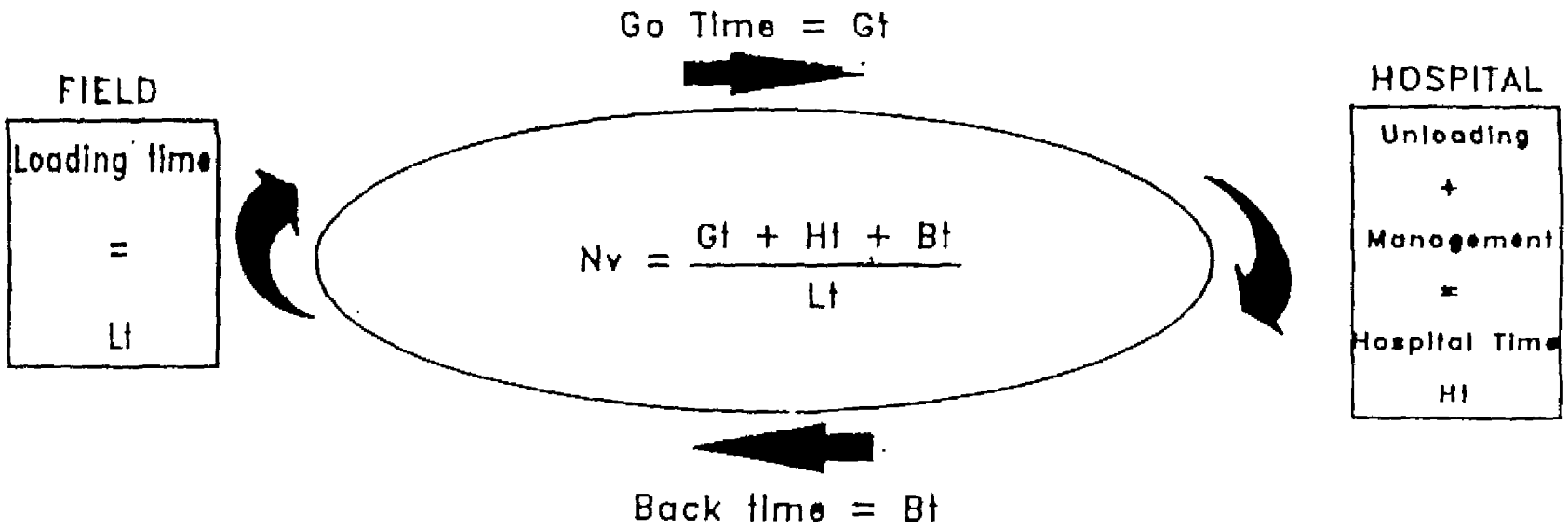


Figure 12

NORIA FORMULA



Nv = Number of vehicules

Medical Management of Disasters
Transport
Ambulance Driver

- Takes orders from Transport Officer only
- Must remain in the vehicle on Radio watch at all times
- Must remain in the Vehicle while loading and unloading victims
- Must park vehicle on stand by in designated area and in a manner to facilitate easy departure

Medical Management of Disasters
Transport
Radio Links

- Radio check must be made before departure from scene
- TO must be informed five minutes before arrival at scene or Emergency Room
- On route communications must be limited to urgent matters only

Medical Management of Disasters

Instructors Course

The Command Post

1. Examine the need for storing and transporting supplies to the disaster site
2. Examine the need for securing, transporting and operating equipment
3. Examine the identification of, and, mobilization of personnel

Pan American Health Organization

MASS CASUALTY MANAGEMENT
THE COMMAND POST

DEFINITION

The Command Post is a multi-sectorial control unit established to:-

- Coordinate the various sectors involved in field management
- Link with back-up systems to provide information and mobilize necessary resources
- Supervise victim management

MASS CASUALTY MANAGEMENT
THE COMMAND POST

THE COMMAND POST

- Performs overall coordination of the field operations
- Receives reports from the other officers in the Command Post
- Continuously assesses the general situation
- Coordinates requests between sectors in the field
- Ensures links between sectors
- Ensures the welfare of all staff involved in field operations
- Liaises with central Headquarters - EOC etc.
- Authorizes releases to the media
- Acts as a link between field operation and backup system
- Ensures adequate radio communications

MASS CASUALTY MANAGEMENT
THE COMMAND POST

PERSONNEL

CORE GROUP:

Highest Ranking member of

- Police
- Fire Service
- Health Sector
- Defence Force (if existing)

Others: (Depends on type of incident)

- Airport Manager
- Factory Manager
- Etc.

Coordinator of the Command Post

Mass Casualty Management
The Command Post

Support Personnel

- Radio Operators
- Recording Clerks
- Messengers

MASS CASUALTY MANAGEMENT
THE COMMAND POST

COORDINATOR OF THE COMMAND POST

- Police Officer of high rank
- Trained in Mass Casualty Management
- Skilled in radio communications network
- Skilled in Traffic Control
- Sound Knowledge of Safety/Security
- Skilled in Field Operations
- Skilled in Staff/Resource Management

MASS CASUALTY MANAGEMENT
THE COMMAND POST

THE POLICE OFFICER IN THE COMMAND POST

- Ensures that radio communication is established and maintained

- Implements security measures to:-
  - Maintain restricted areas
  - Provide crowd and traffic control

- Manage field police resources by:-
  - Continuous assessment of needs
  - Re-deployment of Police Officers
  - Requests for backup
  - Ensure adequate supply of necessary equipment

- Generally is the coordinator of the Command Post

MASS CASUALTY MANAGEMENT
THE COMMAND POST

THE FIRE OFFICER IN THE COMMAND POST

- Coordinates activities of the Fire Service in the field
- Assist the Transport Organization

  Manages fire staff resource needs by:-
  - Continuous assessment
  - Requests for backup
  - Timely rotation of staff
  - Withdrawal of staff when no longer needed
- Reports to the coordinator of the Command Post

MASS CASUALTY MANAGEMENT
THE COMMAND POST

MEDICAL OFFICER IN THE COMMAND POST

- Physician or nurse (DMO or District Nurse)
- Trained in Mass Casualty Management
- Skilled in Resource Management
- Skilled in radio communications
- Skilled in field operations
- Sound knowledge of Health Sector Resources
- Sound knowledge of Health Sector Organization

MASS CASUALTY MANAGEMENT
THE COMMAND POST

HEALTH OFFICER IN THE COMMAND POST

- Supervises the field care of Victims
- Provides the link between the Health/Medical backup system
- Ensures the adequate supply of Manpower and Equipment
- Receives reports from the manager of the AMP
- Deploys and manages Health staff resources
- Reports to the Coordinator of the Command Post

Medical Management of Disasters

Instructors Course

Logistics

1. Examine the need for storing and transporting supplies to the disaster site
2. Examine the need for securing, transporting and operating equipment
3. Examine the identification of, and, mobilization of personnel

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Medical Management of Disasters

Instructors Course

Hospital Reception

Part I: Disaster Planning:

1. Plan for Internal and External Disasters
2. Personnel Involved
3. Command Post
4. Communications within and without

Part II: Emergency Room Management

1. Route
2. Triage Area
3. Treatment areas
4. Call out
5. Security
6. Need for X Rays and Labs
7. Treatment Areas

8 Treatment of Non- Disaster Patients

MASS CASUALTY MANAGEMENT WORKSHOPS

HOSPITAL ORGANIZATION

ACCIDENT AND EMERGENCY DEPARTMENT
MASS CASUALTY MANAGEMENT

GUIDELINES

1. Introduction

2. Objectives :

    2.1 General
    2.2 Specific

3. Structural Organization :

    3.1 Access Ways
    3.2 Ambulance Traffic in Hospital
    3.3 Unloading Area
    3.4 Triage Area
    3.5 Access to Critical Areas (Patients Traffic)
    3.6 Red Area
    3.7 Yellow Area
    3.8 Green Area
    3.9 Mortuary

4. Equipment Management :

    4.1 Emergency Supplies :

        4.1.1 Stretchers and blankets
        4.1.2 Triage Tags
        4.1.3 Stationery
        4.1.4 Emergency Kits
            * Emergency Drugs
            * Infusion Sets
            * Resuscitation Equipment (Ambu, O_2, ...)
            * Splints
            * Dressing

    4.2 Equipment Control:

        4.2.1 Storage Rules
        4.2.2 Regular Checking
        4.2.3 Routine Use
        4.2.4 Expiration Prevention
        4.2.5 Avaibility

4.3 Equipment Mobilization :

4.3.1 Alert Procedure
4.3.2 Deployement
4.3 3 Use Control

4.4 Post Disaster Checking and Storage

5. Staff Management :

5.1 AED Staff :

5.1.1 Selection
5.1.2 Training
5.1.3 Testing
5.1.4 Team Spirit
5.1.5 Disaster Adaptation
5.1.6 Disaster Working

5.2 Additional Staff :

5.2.1 Pre-selected :
* Selection
* Training
* Testing
* Integration
* Control

5.2.2 Non pre-selected :
* Integration
* Control

5.3 Disaster Debrief :

5.3.1 Performance Evaluation
5.3.2 Mental Health

6. AED Disaster Procedures :

6.1 Alert :

6.1.1 Phases
6.1.2 Dispatching
6.1.3 Resources

6.2 Preparation for Reception :

6.2.1 Structures
6.2.2 Equipment
6.2.3 Staff

6.3 Triage :

6.3.1 When ?
6.3.2 Where ?
6.3.3 By Who ?
6.3.4 General Organization
6.3.5 Basic Principles
6.3.6 Adaptation to situation's evolution
6.3.6 Dispatching
6.3.7 Records and follow-up

6.4 Treatment :

6.4.1 Triage Area
6.4.2 Red Area
6.4.3 Yellow Area
6.4.4 Green Area
6.4.5 Corpses

7. Preparedness :

7.1 Structures
7.2 Equipment
7.3 Staff
7.4 Procedures
7.5 Global Exercise

8. Link with Hospital Disaster Plan :

8.1 Relations with Hospital Authorities

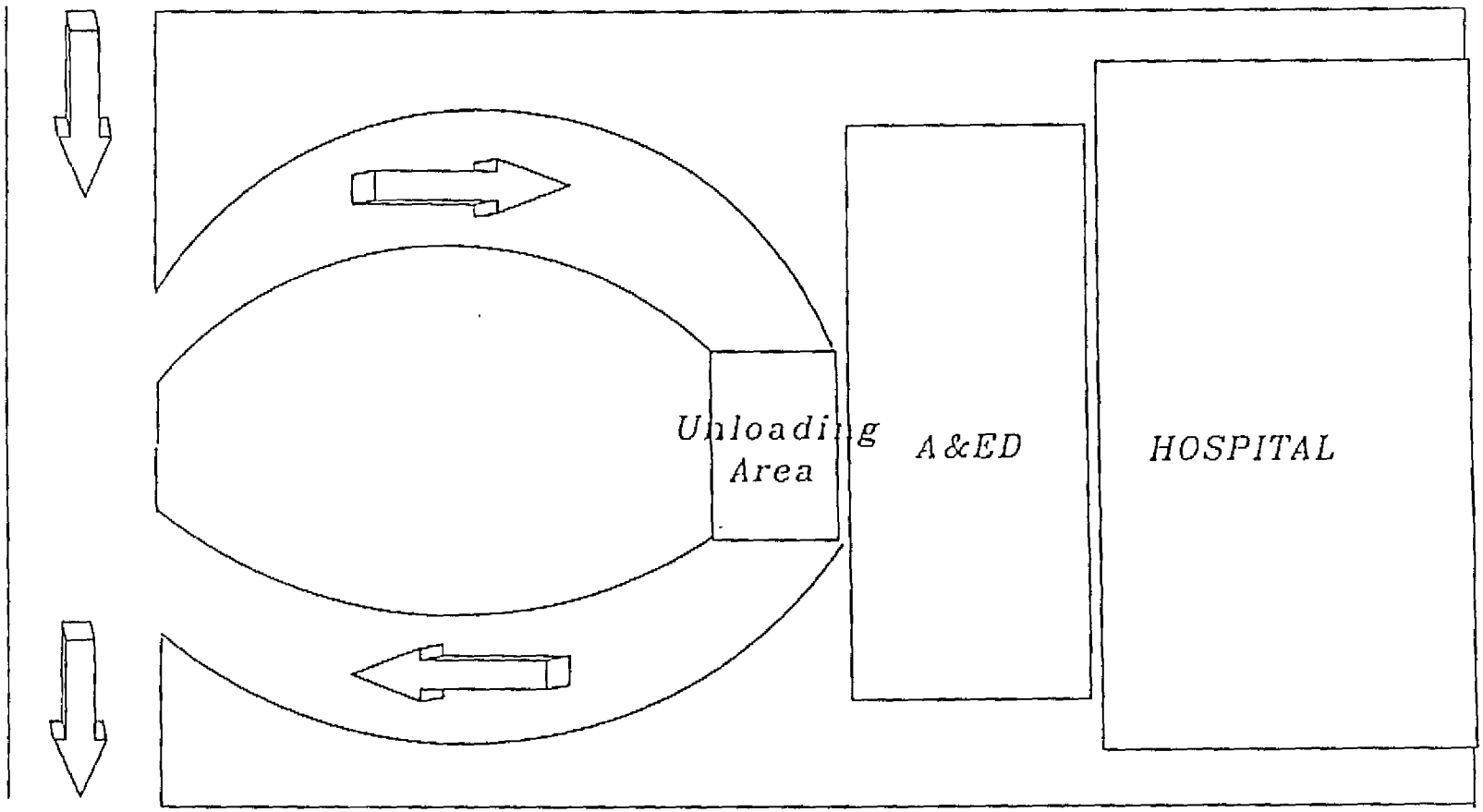
8.1.1 Overall Management
8.1.2 Specific Management
8.1.3 Authority Link

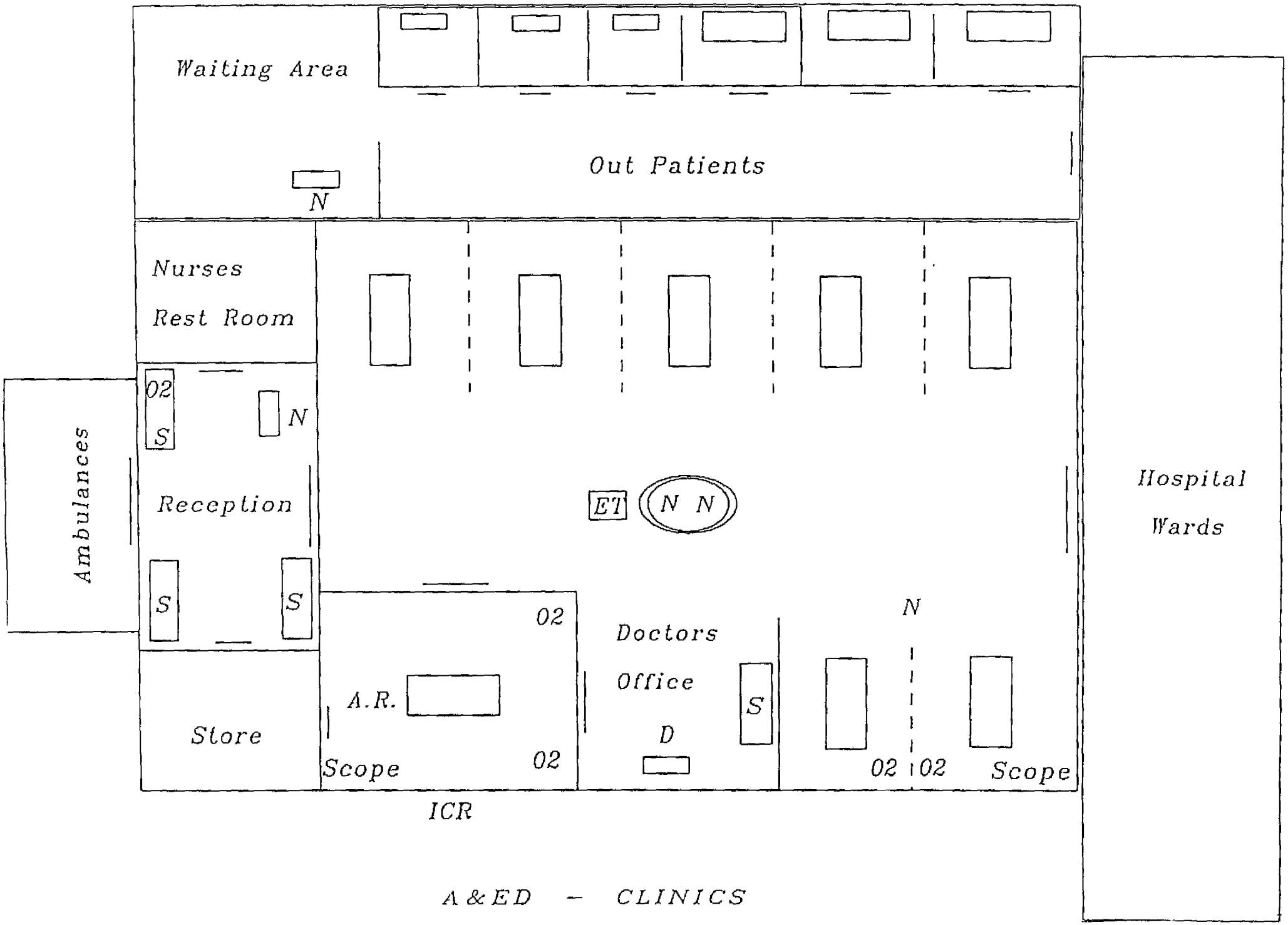
8.2 AED Procedures integration in Hospital Disaster Plan :

8.2.1 Pre Disaster meetings
8.2.2 General Commitment
8.2.3 General Diffusion
8.2.4 Exercises

ACCIDENT & EMERGENCY DEPARTMENT

AMBULANCE TRAFFIC CONTROL




Waiting Area
Out Patients
N
Nurses
Rest Room
02
S
N
Ambulances
Reception
ET
N N
Hospital
Wards
S
S
02
N
Doctors
Office
A.R.
S
Store
D
Scope
02
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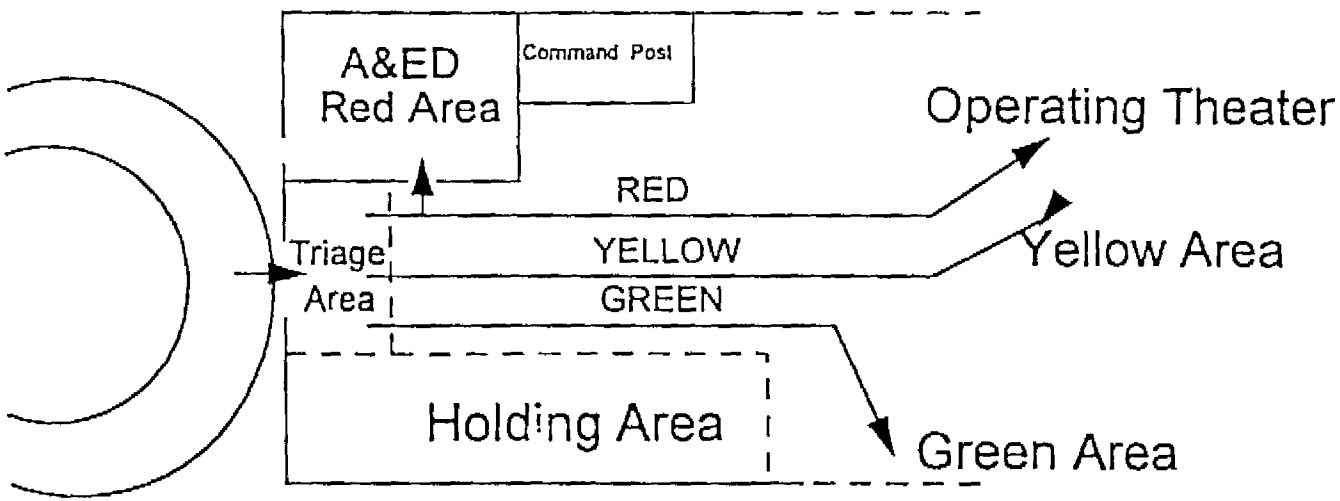
Scope
ICR

A & ED — CLINICS

HOSPITAL RECEPTION

Victims' Flow



Medical Management of Disasters

Instructors Course

Planning for Disasters

1. Define the terms Hazard, Risk and Vulnerability
2. Describe the Disaster Cycle
3. Describe the extent of damage (Property, Population and Economy) for each hazard
4. Define Mitigation and Retrofitting
5. Stress need for National Disaster Response plans with multi-sectorial involvement
6. Define agencies involved in disaster management
7. Define need for External assistance
8. Discuss Supplies management

Pan American Health Organization

Management of Disasters

Planning for Disasters

Disaster Management Cycle

- Prevention
- Mitigation
- Preparedness
- Alert
- Response
- Rehabilitation
- Reconstruction

Management of Disasters
Planning for Disasters

Emergency and Disaster management

- Is More than just response and relief, its proactive:
- It is a systematic process: it is based on key management principles of:
  - Planning
  - Organizing
  - Leading (including coordinating and controlling)
- Aims to reduce the negative impact or consequences of adverse events
- Is a system with many components:
  - Hazards, Vulnerability and Risks
  - Public perception of risk and Government's state of readiness
  - Legislation, Plans and Programmes
  - People, Organization and Resources to implement plans and programmes
  - Results:
  - Evaluation/Feedback

Management of Disasters
Planning for Disasters

Hazard

The potential for a natural or human-caused

event to occur with negative consequences

Emergency

A situation generated by the real or imminent occurrence

of an event requiring immediate attention

Disaster

Natural or human- caused event which causes intense negative

impacts on people, goods, services and/or the environment,

exceeding the affected community's capability to respond

Management of Disasters
Planning for Disasters

Vulnerability

The extent to which a community's structure, services or environment likely to be damaged or disrupted by the impact of a hazard

TYPES

1. Tangible:

- People
- Property
- Economy
- Environment

2. Intangible.

- Social structures
- Cultural Practices
- Cohesion
- Motivation

Mitigation

Hazard * Vulnerability = Risk

probability community

intensity facility

Hazard * Vulnerability = Risk

Hazard * Vulnerability = Risk

Mitigation

- Definition.
- Preparedness vs Prevention.
- Hazard. Vulnerability. Risk.
- Structural & Non-Structural Elements.
- Hazards in the Caribbean.
- New Buildings. Design Considerations.
- Existing Buildings. Retrofitting.
- Some Examples.

Mitigation

Definition

Measures taken in advance of exposure to a hazard aimed at decreasing its impact on society and the environment.

mitigate - make milder, or less intense, or less severe (Oxford Dictionary)

Mitigation

Disaster Prevention

Actions taken to prevent hazards from resulting in disasters.

Disaster Reduction

Real world situation. Goal is prevention.

Mitigation

Structural Elements

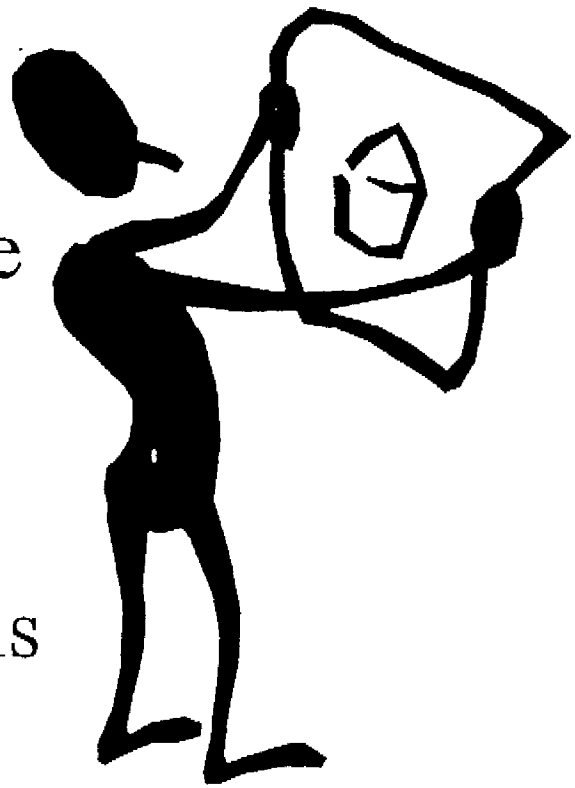
Portions of a building that support it and resist gravity, earthquakes, wind forces, and other types of loads.

columns/pillars beams/girders/joists floor/roof sheeting
slabs/decking load bearing walls foundations

Mitigation

Design Considerations. New Buildings. (1-4 %)

- Site Selection
- Building Configuration/Shape
- Materials Used
- Roof Design
- Non-Structural Considerations
- Building Code



Mitigation

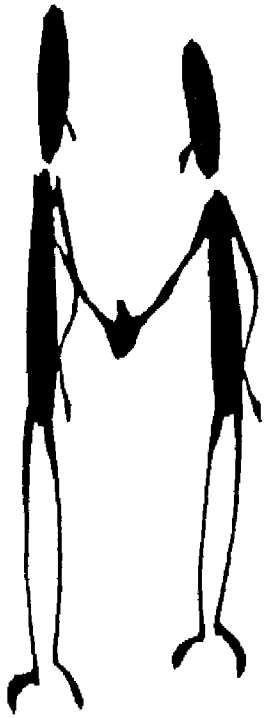
Non-Structural Elements

Everything except the structure including contents of the building.

ceilings windows laboratory equipment shelving
inventory in stores computers electrical equipment
furnishings light fixtures/fittings

Mitigation

Preparedness



Any action taken in advance of an emergency that develops operational capabilities and facilitates an effective response in the event that an emergency occurs.

Mitigation

Retrofitting. Existing Buildings.

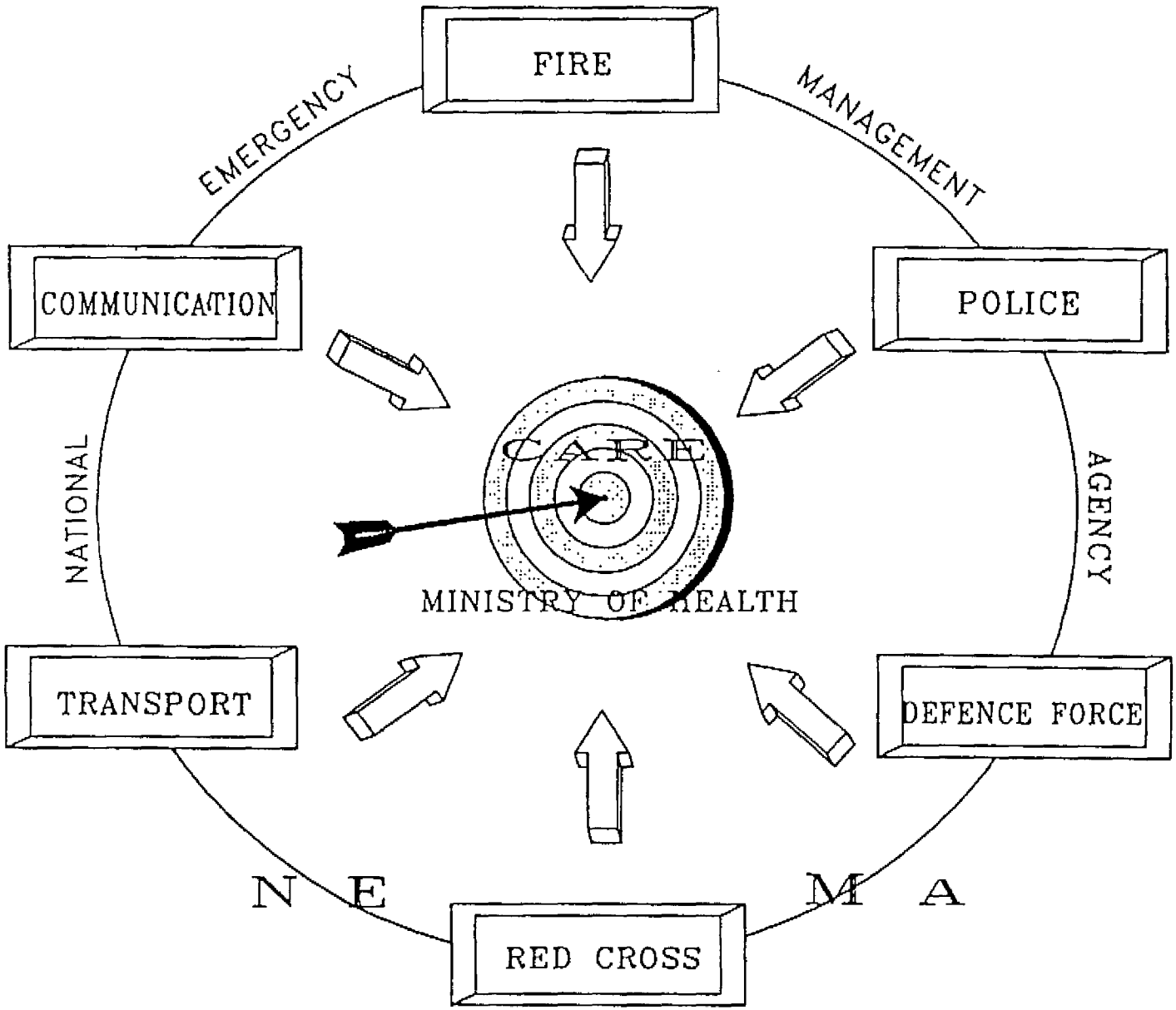
Vulnerability Analysis

structural

non-structural

infrastructure

MASS CASUALTY MANAGEMENT SYSTEM



National
Disaster Response Plan

Health Sector Disaster Response Plan

- Ministry Admin/Management
- Public Information
- Transport
- Epidemiology
- Supplies Management
- Environmental Health
  - water, food, shelter
  - solid/liquid waste
  - vector control
- Hospitals
- District Facilities
- Communities
- Mass Casualty Management
  - police
  - fire services
  - military
  - NGO's
  - ambulance

National
Disaster Response Plan