

Conceptual Framework of Disaster & Disaster Management : the Utstein Style

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Divisi Menejemen Bencana, PMPK – FK UGM
Program Studi Menejemen Bencana, Fakultas Pasca Sarjana UGM

Curriculum Vitae

Pelatihan :

Advanced Trauma Life Support (Instructor), 1995
Advanced Cardiac Life Support, 1996
Training Workshop on Disaster Management, WHO, Jakarta 1996
Workshop on Conceptual Framework of Disaster Management, APCDM, Tokyo 2006
Hospital Preparedness for Emergency and Disaster (HOPE), 2006
Workshop on Disaster Research, WCDEM, Amsterdam 2007

Organisasi :

Pusat Siaga Bantuan Kesehatan (Pusbankes) – 118, Yogyakarta
Komite Trauma, IKABI Pusat
Tim pakar PPK Departemen Kesehatan
Anggauta World Association of Disaster Emergency and Management (WADEM)

Kontributor buku :

-Standard Penanggulangan Gawat Darurat Trauma, Komisi Trauma, 1996
-Standard Pelayanan Gawat Darurat, DepKes 2000
-Pedoman Penyusunan Peta Geomedik, DepKes2005
-Penanggulangan Penderita Gawat Darurat seri 1 dan 2, DepKes, 2005
-Pedoman Evakuasi Medis, DepKes 2005
-Pedoman Penanggulangan Korban Bencana Masal, DepKes 2004
-Pedoman Unit Gawat Darurat, Dinas Kesehatan tk I, DIY 2005
-Technical Guidance for Health Crisis Responses on Disaster, DepKes 2007



Keterlibatan pd penanggulangan bencana :

Kekeringan, Lombok -West Nusa Tenggara, 1979
Letusan Merapi, Jogjakarta, 1994
Kerusuhan sipil, Jogjakarta, 1998
Bom Bali I, Denpasar – Bali, 2003
Kecelakaan pesawat, Solo, 2004
Tsunami, Meulaboh, 2004
Gempa, Nias, 2005
Gempa, Bantul, 2006
Tsunami, Pangandaran, 2006
Kecelakaan pesawat, Jogjakarta, 2007
Gempa, Bengkulu, 2007
Gempa Padang, 2009



**Janapria sub district,
West Nusa Tenggara,
Indonesia, 1978**





Meulaboh, West Aceh,
December 2004



OBJEKTIF

- 1. MEMAHAMI DAN MENGETI TENTANG KONSEP DASAR BENCANA**
- 2. MEMAHAMI DAN MENGETI UPAYA PENANGGULANGAN BENCANA, ORGANISASI, MEKANISME KERJA, SUMBERDAYA**
- 3. MEMAHAMI, MENGETI SERTA DAPAT MENGANALISA KEJADIAN BENCANA**
- 4. MEMAHAMI, MENGETI ,DAPAT MENGORGANISASI UPAYA PENANGGLANGAN BENCANA**

Disaster

War

100 victims of train accident

Activation of Emergency
Response Team

landslide

Earthquake on 9 Richter scale followed by Tsunami

Treatment of 180 patients after a big earth quake
by resque teams from abroads

Famine

Bencana :

“ Bencana adalah peristiwa atau rangkaian peristiwa yang mengancam dan mengganggu kehidupan dan penghidupan masyarakat yang disebabkan, baik oleh faktor alam dan/atau faktor nonalam maupun faktor manusia sehingga mengakibatkan timbulnya korban jiwa manusia, kerusakan lingkungan, kerugian harta benda, dan dampak psikologis.”

(UU Republik Indonesia no 24 Tentang Penanggulangan Bencana)

Disaster :

“ Sudden ecological phenomenon of sufficient magnitude to require external assistance “

(WHO)

Disaster :

“ Destructive effect of natural or manmade force overwhelm the ability of given area or community to meet the demand for health care “

(American college of Emergency Physicians)

Disaster :

- *Disaster are exeptional events which sudenlly kill or injure a large numbers of people*

Red Cross

Disaster

Definition :

A serious disruption of the functioning of society, causing widespread human, material or environmental losses which exceed the ability of affected society to cope using its own resources.

Sudnes KO, Birnbaum ML 2003 : Health Disaster Management Guidelines for Evaluation and Research in Utstein Style

Makna Beberapa Kata

- Gempa bumi, letusan gunung berapi, banjir, badai, konflik, adalah contoh kejadian yang menjadi sumber **bahaya (*hazard*)**, yang memungkinkan timbulnya kerugian.
- **Kelemahan (*Vulnerability*)** adalah kondisi-kondisi akibat faktor fisik, sosial, ekonomi dan lingkungan yang meningkatkan kepekaan suatu masyarakat untuk mengalami efek buruk dari **bahaya**.
- **Risiko (*risk*)** adalah besar kemungkinan konsekuensi buruk (kesehatan dan ekonomi) akibat interaksi antara bahaya dan kelemahan

$$\text{Risk} = f(\text{Hazards} \times \text{Vulnerability}) / \text{Capacity}$$

- **Bencana (*disaster*)** adalah tiap kejadian bahaya yang mengakibatkan kerusakan, gangguan ekonomi, kematian atau penurunan kondisi kesehatan dan pelayanan kesehatan sedemikian rupa hingga memerlukan tanggapan luarbiasa dari pihak di luar wilayah atau penduduk yang sedang manyandangnya (WHO).
- **Kegawatdaruratan (*emergency*)** adalah kejadian tak terduga atau memerlukan tindakan segera. Bencana acap menimbulkan situasi kegawatdaruratan ini.

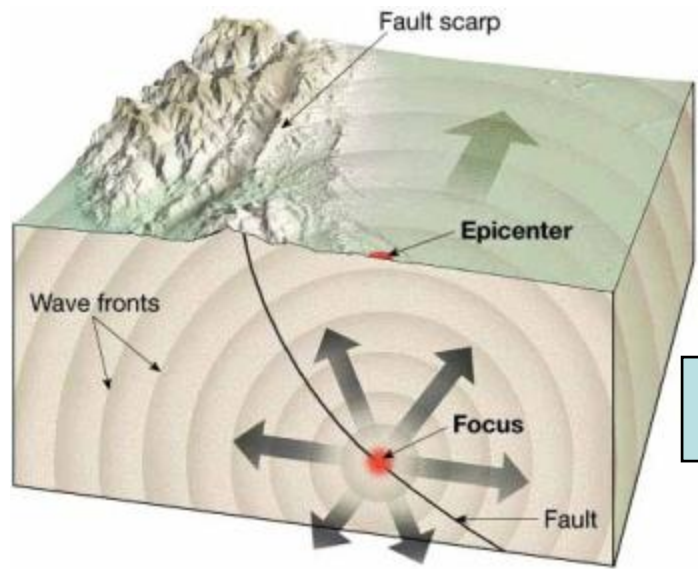
Bencana adalah interaksi antara bahaya dan penduduk.

Apa Akibat Bencana

- Fungsi normal dan kehidupan masyarakat terganggu
- Bencana melampaui kemampuan mekanisme masyarakat utk mengatasinya
- Gangguan yang diakibatkan bencana menyebabkan pulihnya kemampuan untuk berfungsi normal memerlukan perbantuan dari luar.

- Kematian dan kecacatan (akibat langsung maupun tak langsung)
 - Kerugian infrastruktur dan bekal (akibat langsung)
- Kerugian atau terganggunya penyampaian pelayanan kesehatan baik rehabilitatif, kuratif, penemuan kasus, protektif maupun promotif (akibat tak langsung)

Siapa Korban Bencana dan Apa yang Dialaminya



Bahaya yang menimbulkan bencana



Kerusakan pemukiman

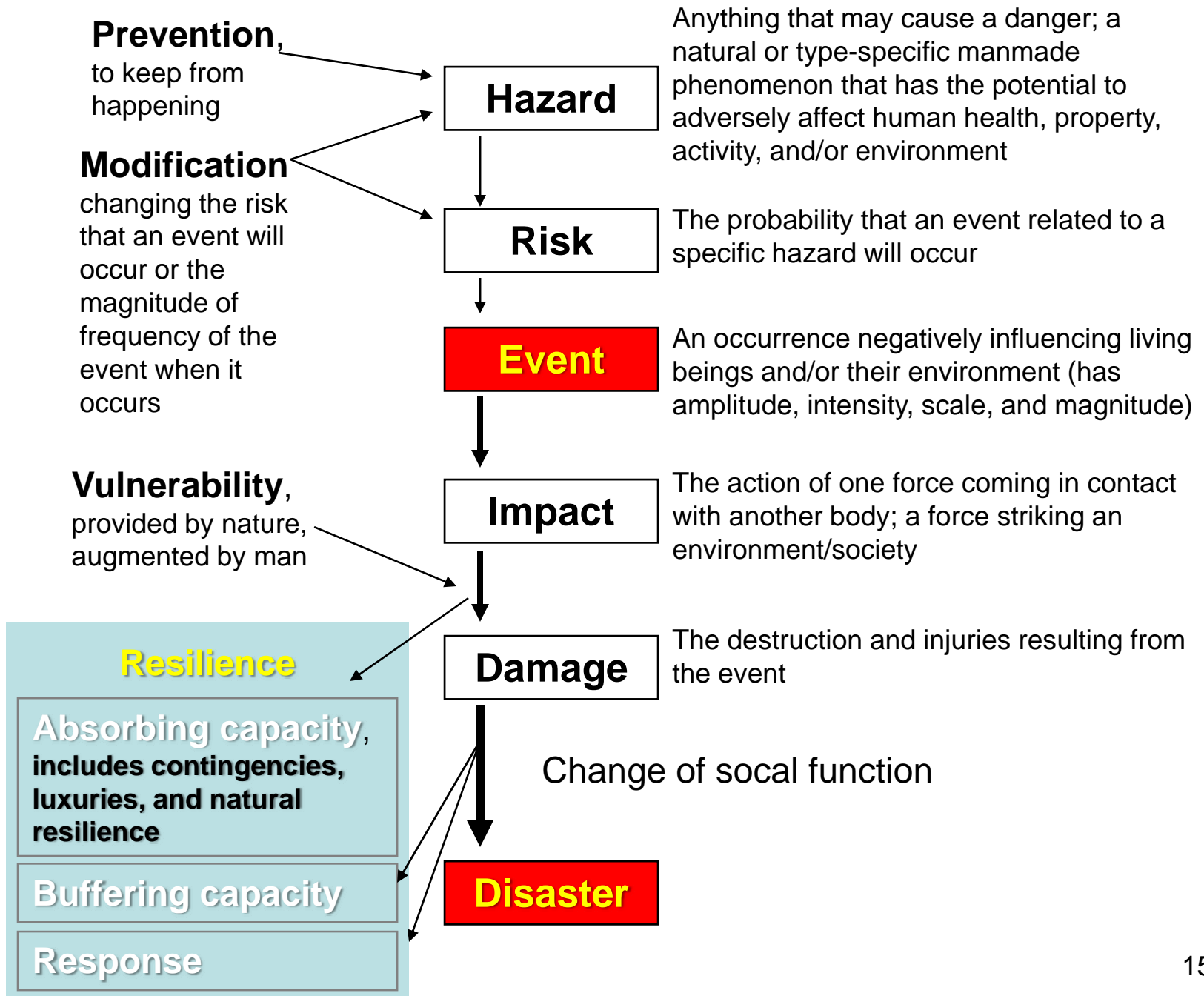


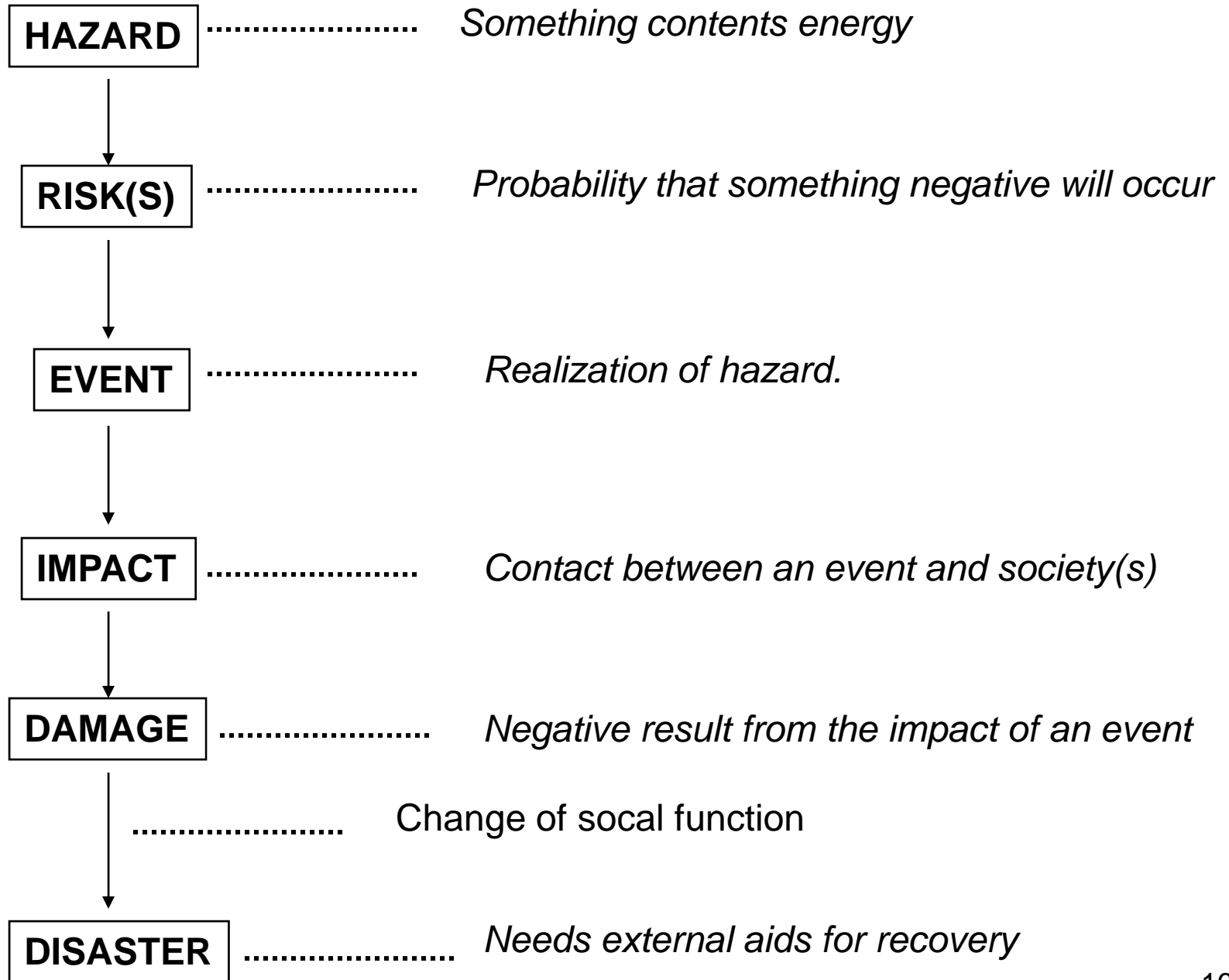
Pengungsian & Masalah Kesehatan



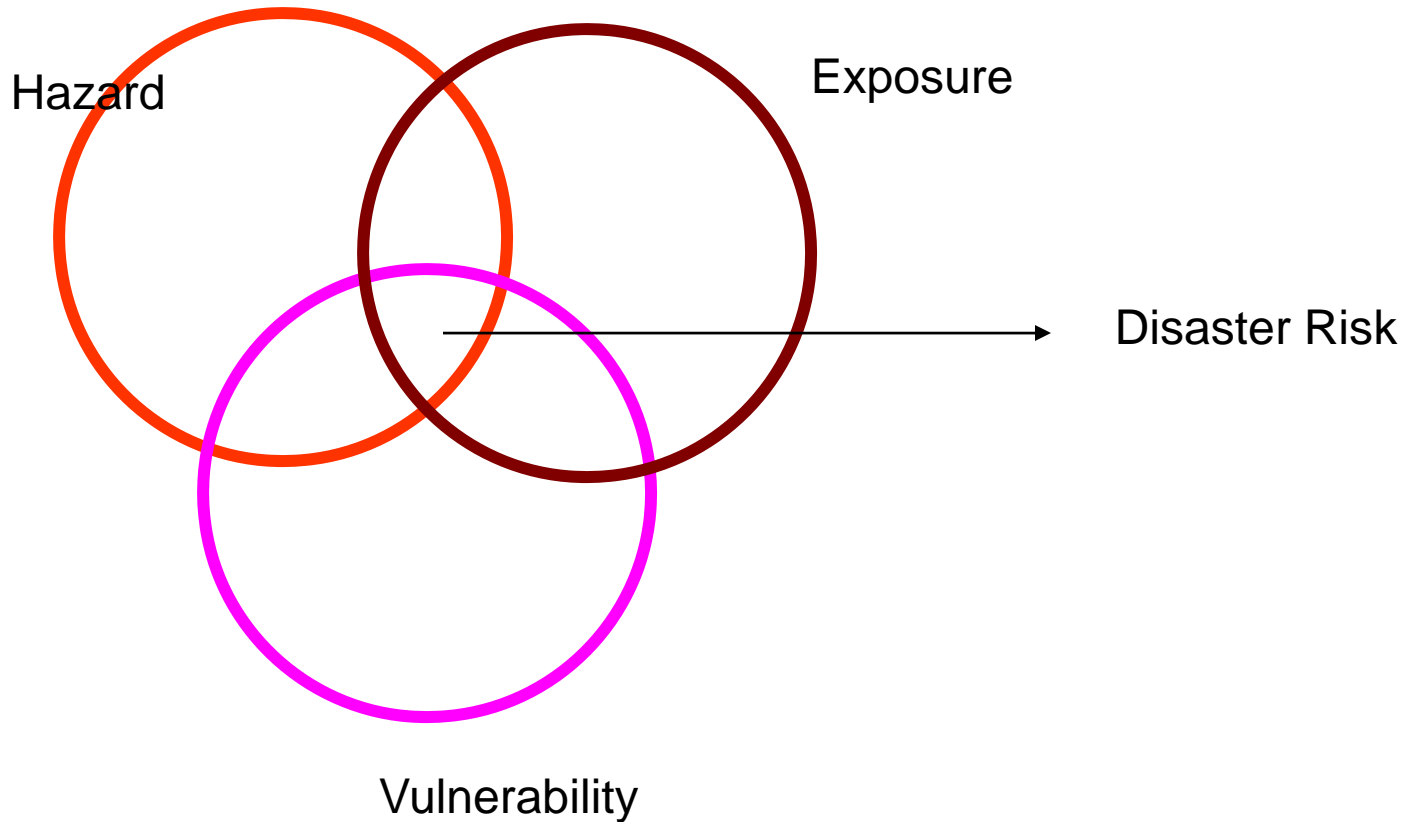
Kecelakaan

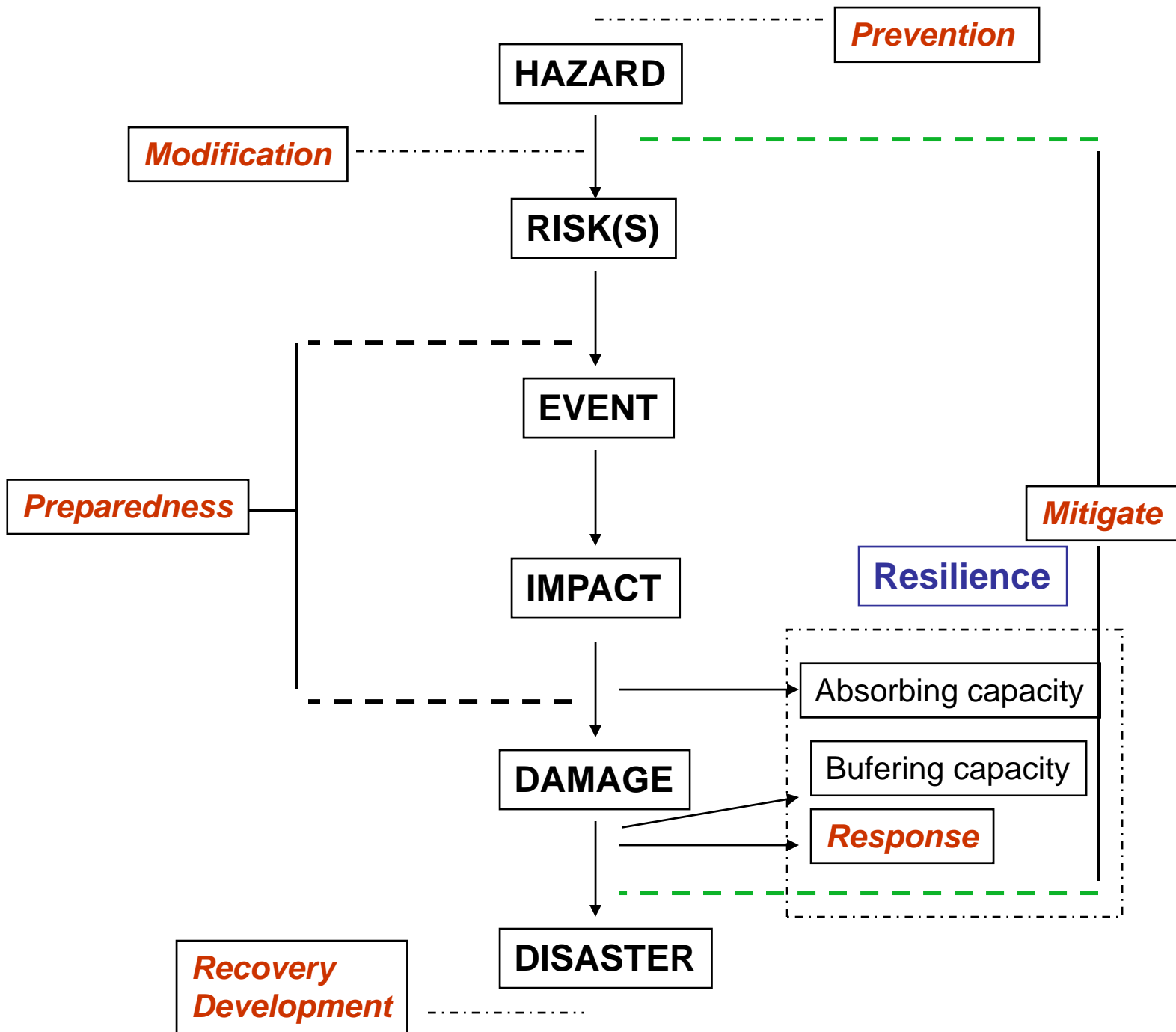
Manusia mengalami akibat bencana : harta, cedera / kesehatan & kematian

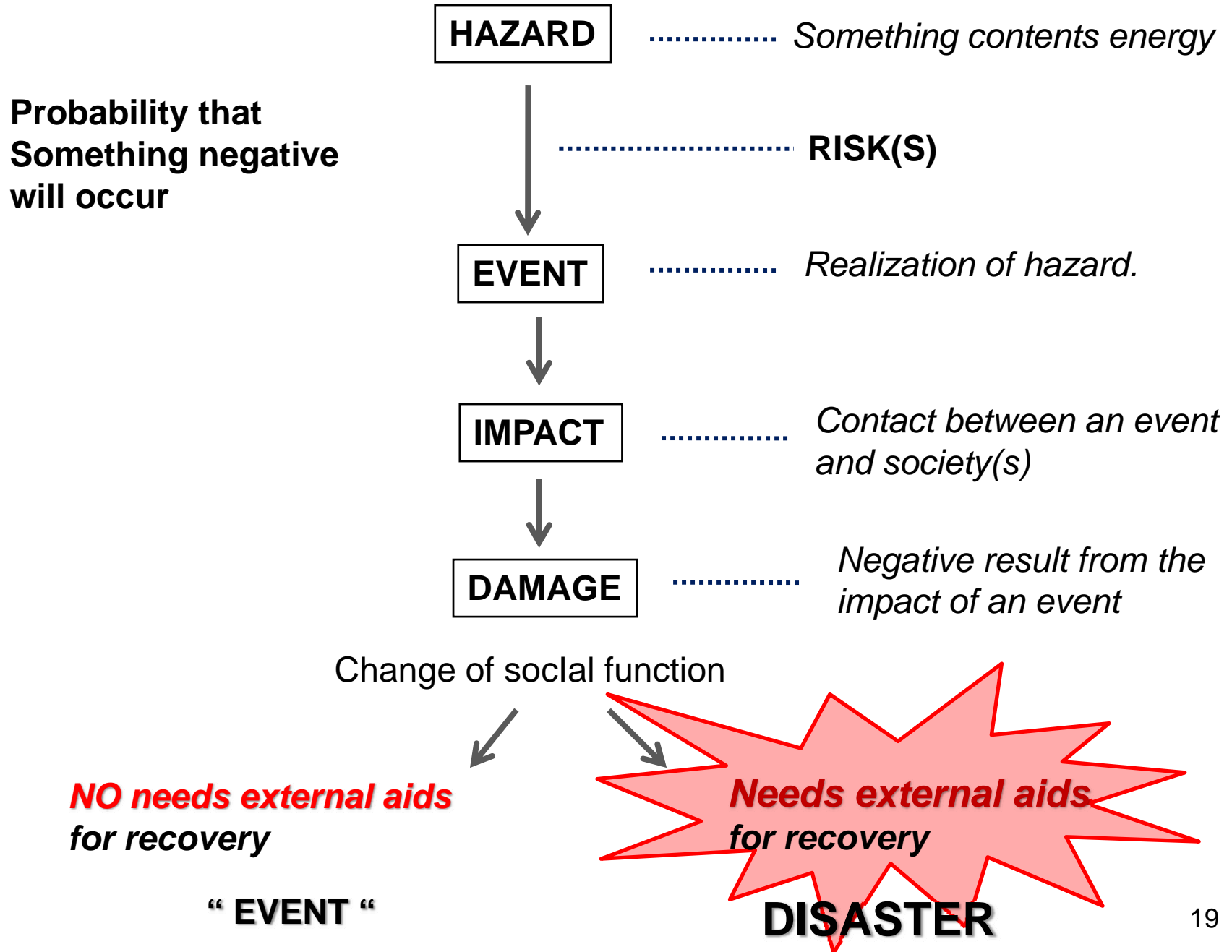




Disaster Risk







Disaster Management

- **The aggregate of all measures taken to reduce the likelihood of damage that will occur related to hazard(s) and to minimize the damage once an event is occurring or has occurred and to direct recovery from the damage.**
- **The body of policy and administrative decisions and operational activities that pertain to the various stages of a disaster at all levels**



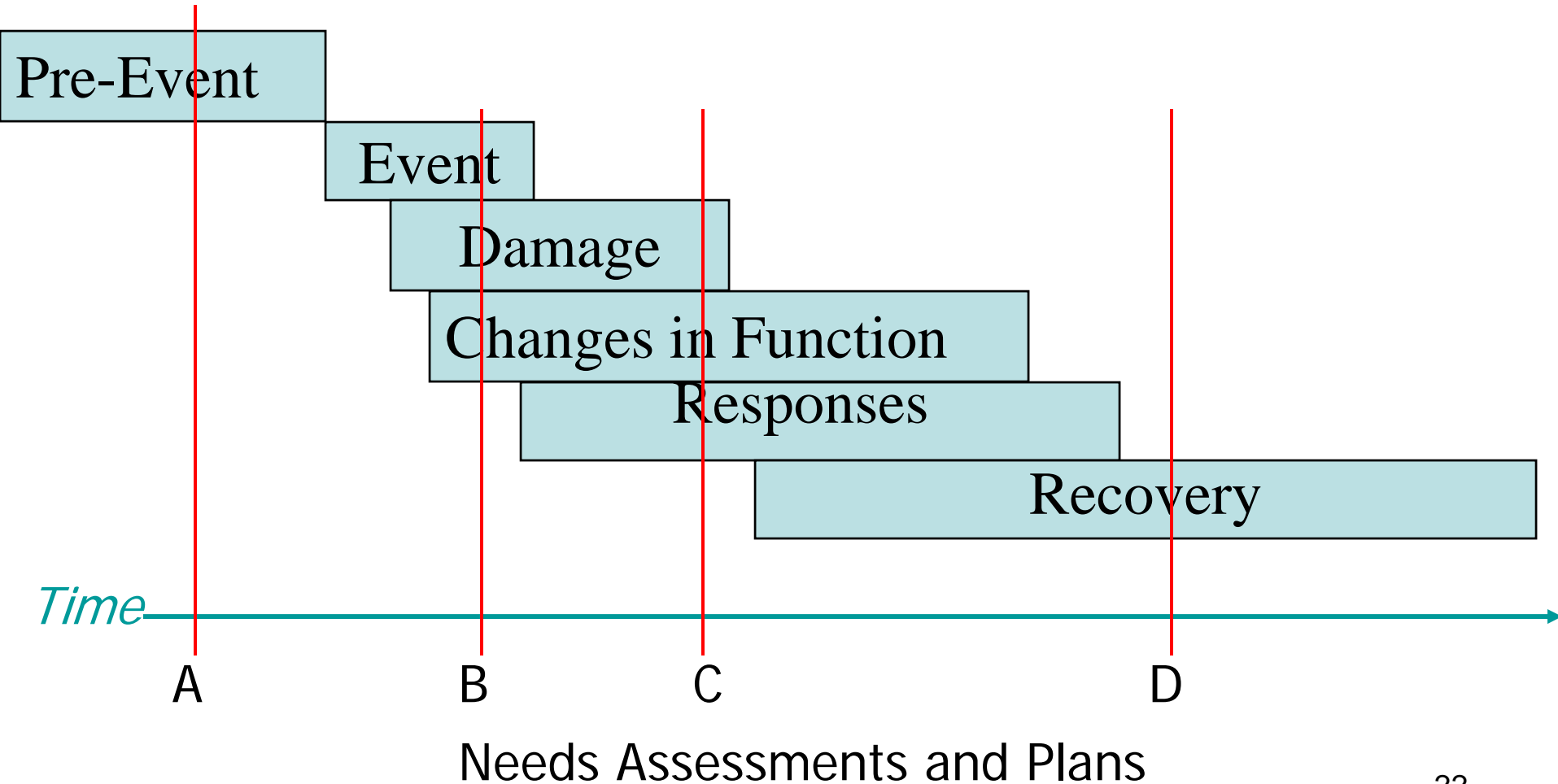
Project : Jerebatan Sarnici / Cystern
Purpose : Water storage during War
Provider : East Roman Empire
Area covered : Constantinople
Number of citizen to be served : 300.000
Capacity : 80.000 m3 X 8 (number of cystern)
Technology : High Tech
Safety : Bio indicator (fish)
Time : 600 AC
Cost : ?

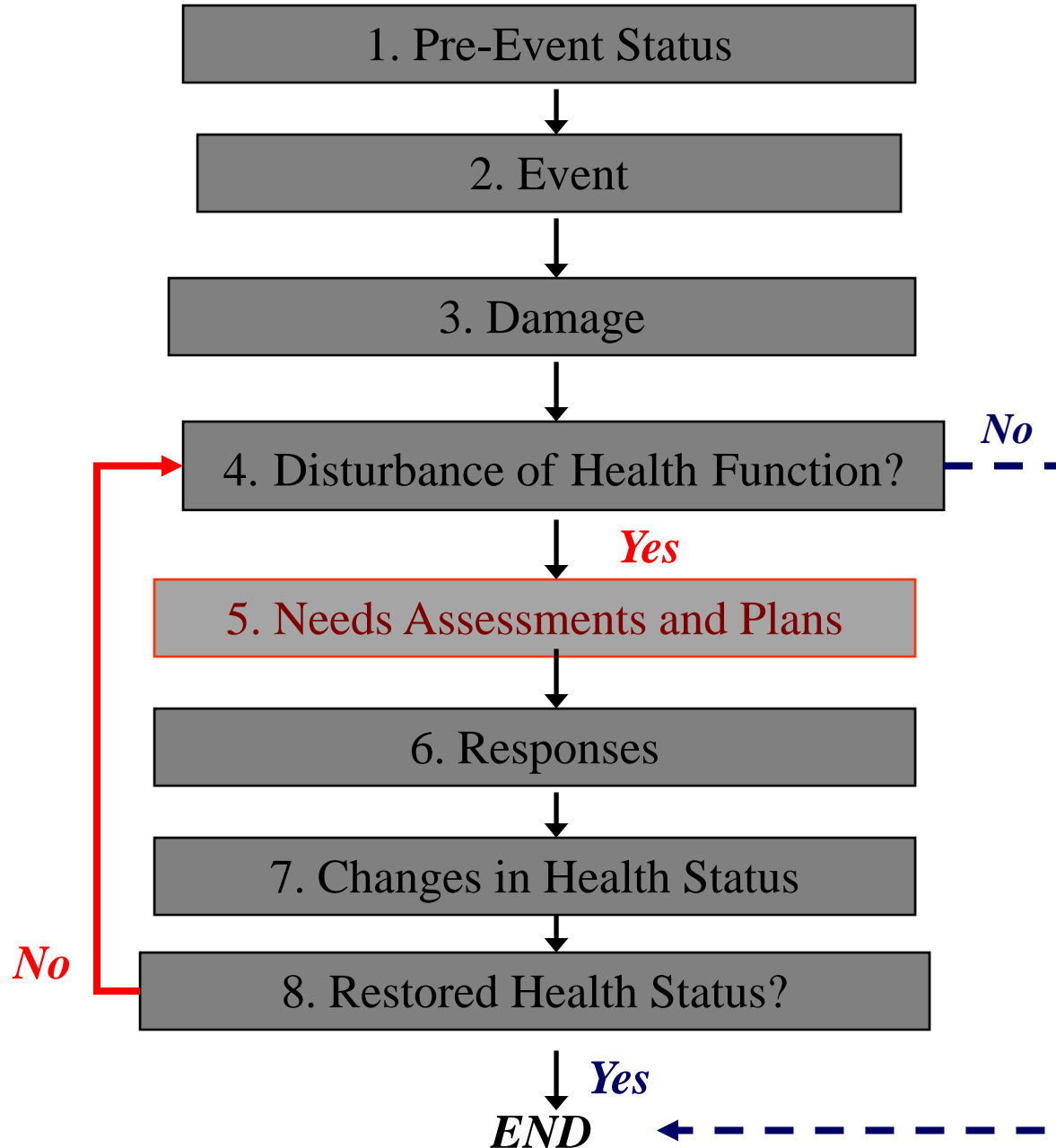
Project : Field Water Purifier & Storage
Purpose : Water Supply in Disaster Relief
Provider : Spanish Red Cross
Area covered : Meulaboh & Surrounding area
Time : 2005
Number of citizen to be served : 85.000
Technology : Medium Tech
Capacity : ?
Safety : Chemical
Cost :

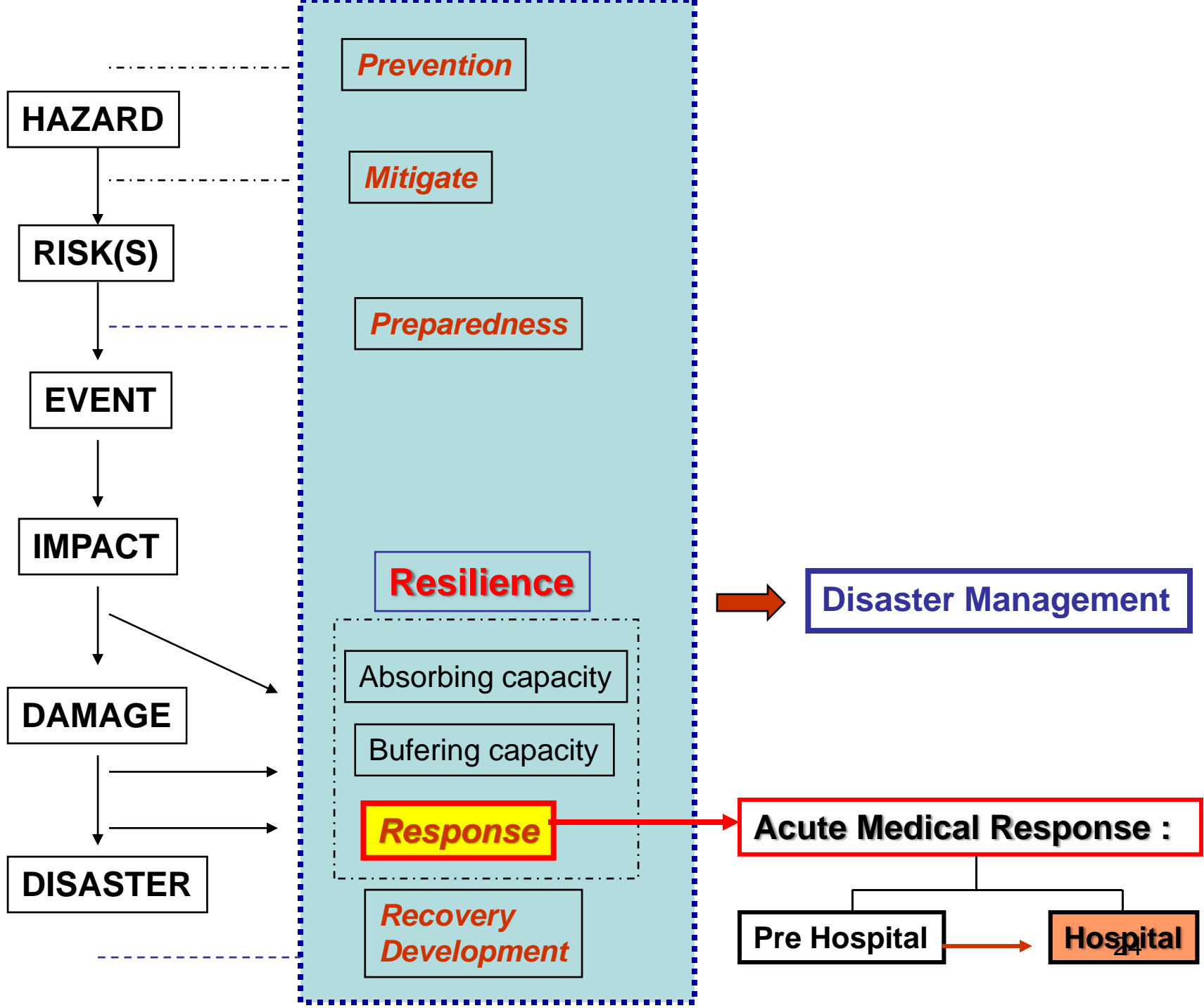
Water in Disaster



Operational Framework







Prevention

HAZARD

Mitigate

RISK(S)

Preparedness

EVENT

IMPACT

Resilience

Disaster Management

Absorbing capacity

DAMAGE

Bufering capacity

Response

Acute Medical Response :

DISASTER

*Recovery
Development*

Pre Hospital

Hospital

Medical Emergency Response

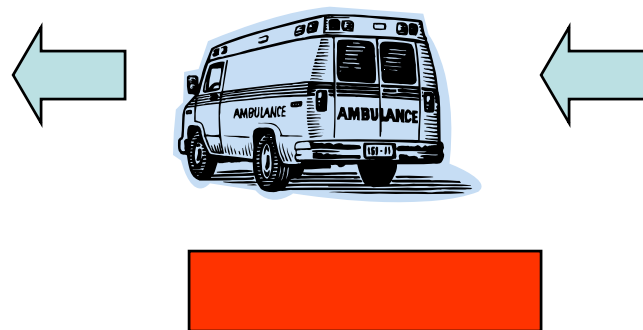
** Hendro Wartatmo*

Medical Emergency Response

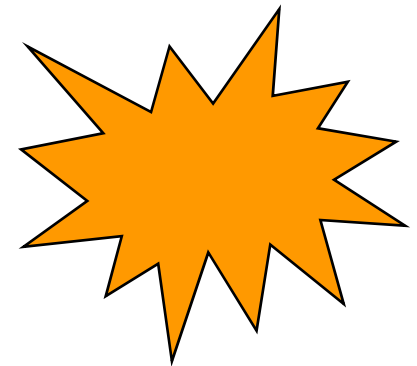
Hospitalisation
area



Transportation
- Transfer



Damage
area



Disaster Plan

Pre Hospital Disaster Plan

M = major incident
E = exact location
T = type of injury
H = hazard,
A = Access
N = number of cas
E = emergency
services, present and
required

Hospital Disaster Plan

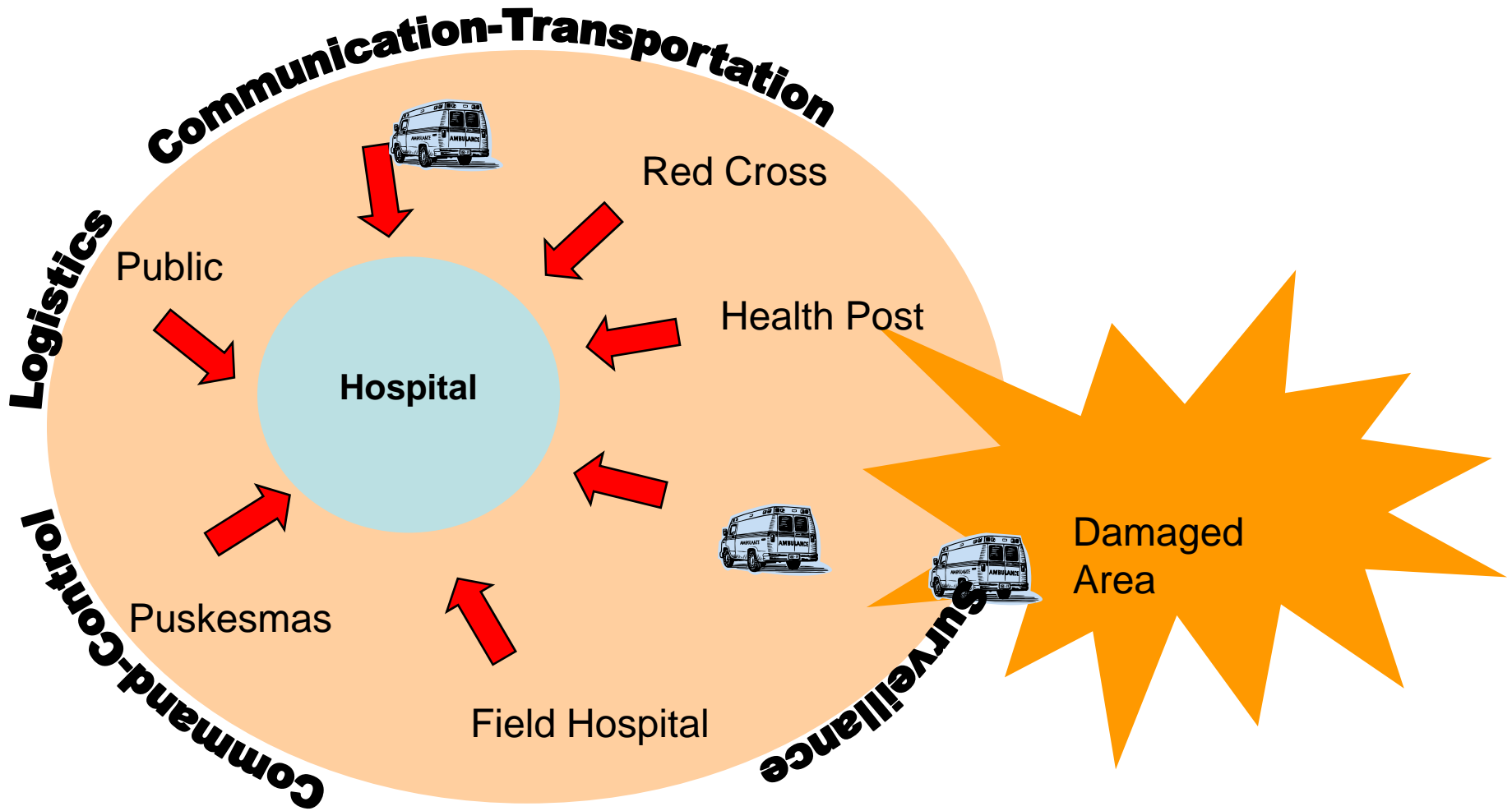
- **C**ommand
- **S**afety
- **C**ommunication
- **A**ssessment
- **T**riage
- **T**reatment
- **T**ransport

Regional Disaster Plan

- **C**oordinating Team
- **M**edical team
- **S**urveillance
- **M**anagement back up

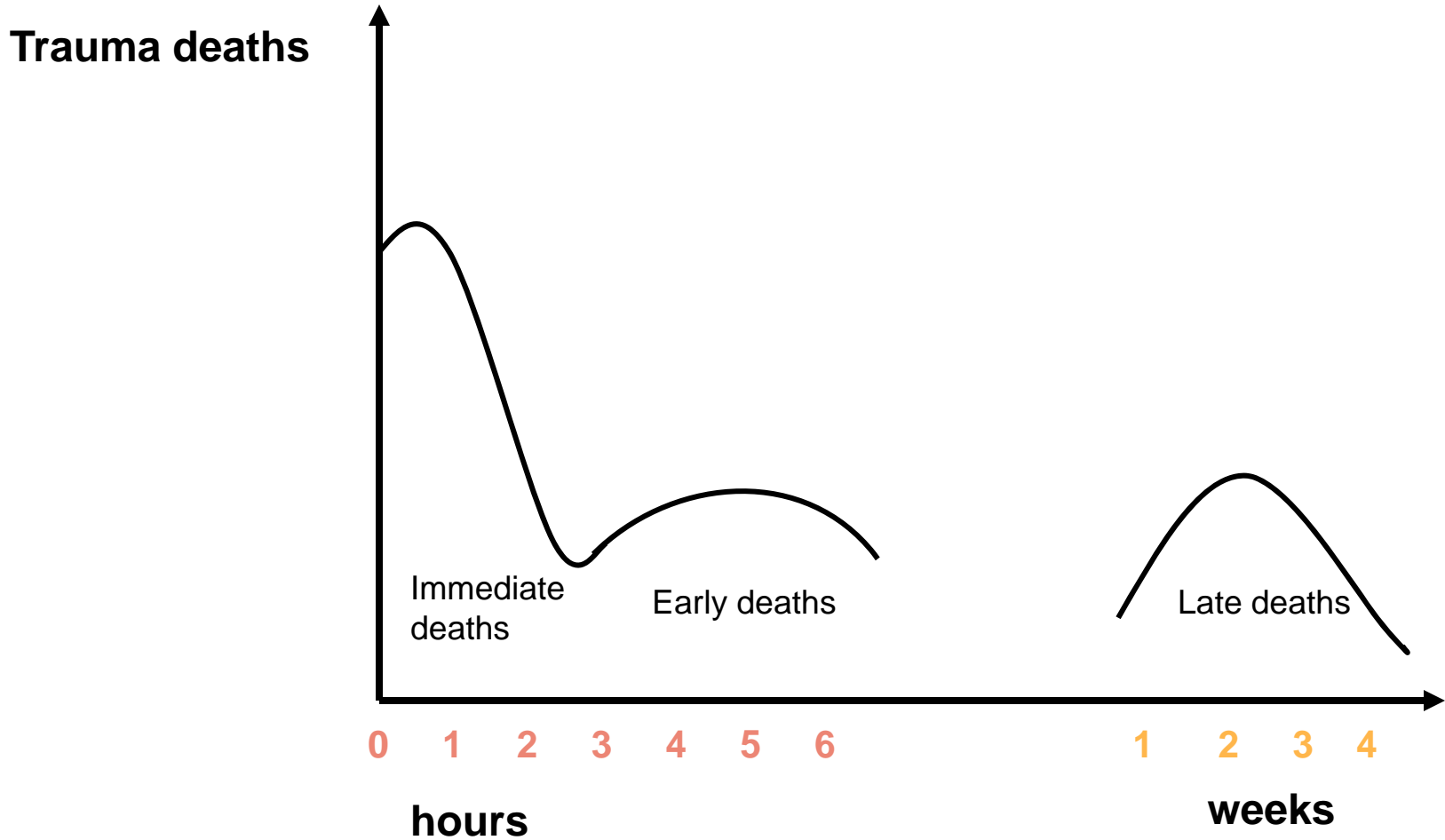
Medical Emergency Response





Regional Response of Health Sector

Trunkey's curve



PRE – HOSPITAL :

Triage

Treatment:

- Resuscitation
- Stabilization

Transfer

PROBLEMS

- Limited time
- Limited resources

HOSPITAL :

Triage

Treatment:

- Resuscitation
- Stabilization
- Definitive procedure

Transfer / Refer

PROBLEMS

- Number of victims
- Severity of trauma
- Complicated procedure

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