

# RAPID ASSESSMENT IN HEALTH EMERGENCIES

David A. Bradt, MD, MPH, FACEM, FAFPHM, FAAEM

Department of Emergency Medicine  
Royal Melbourne Hospital, Australia

Department of Emergency Medicine  
Johns Hopkins Hospital, USA

Department of International Health  
Johns Hopkins School of Public Health, USA

# OUTLINE

- Definitions
- Approach to assessments
- Problems in assessments
- Case study

# SURVEILLANCE DEFINITION

LANGMUIR, 1983

The continued watchfulness over the distribution and trends of disease incidence through the systematic collection, consolidation, and evaluation of morbidity and mortality reports and other data.

# RAPID EPIDEMIOLOGICAL ASSESSMENT

BOSTID/ACHBRD, 1981

- Pioneered in WHO smallpox eradication program
- Intended for use in developing countries to provide health information more rapidly, simply, and less costly than standard data collection methods
- Applied methodology borrowed from health services research, operations research, and traditional epi

# REA APPLICATIONS

BOSTID/ACHBRD, 1981

- Small area survey methods
- Surveillance methods
- Individual risk assessment
- Community risk assessment
- Case control evaluation studies

# REA APPLICATIONS IN DISASTERS

Data-based methodology used  
to quickly determine

- Disaster magnitude
- Health impact
- Survivors immediate needs
- Local response capacity
- Survivors future threats

# ASSESSMENT TYPES

- Damage assessment
- Needs assessment
- Health assessment
- Sectoral assessment
- Hazard assessment
- Probability assessment
- Vulnerability assessment
- Capability assessment
- Risk assessment

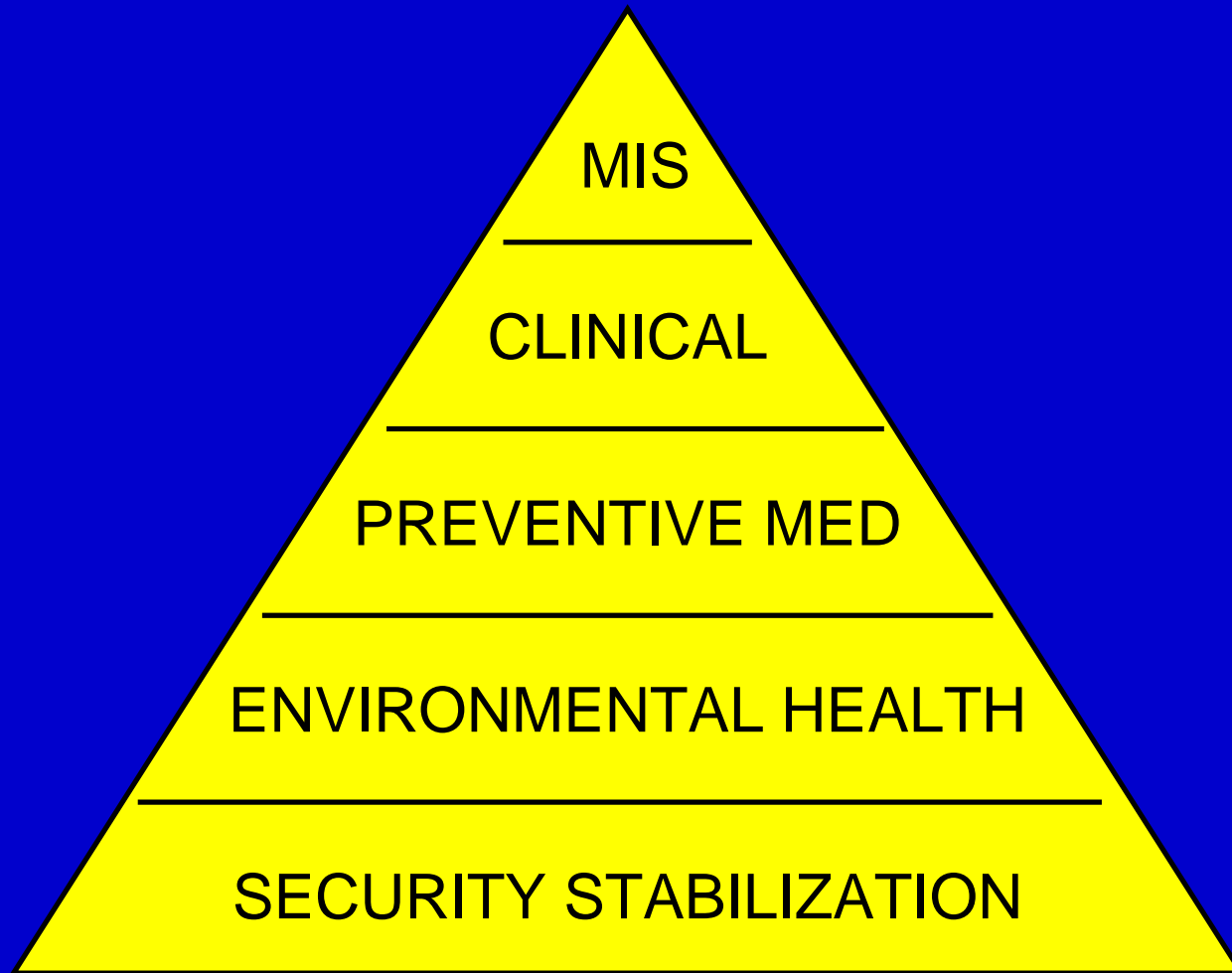
# DAMAGE ASSESSMENT PURPOSES

- Verify damage
- Establish relief priorities
- Estimate inputs in technical, material, and financial assistance
- Disseminate information

# HEALTH ASSESSMENT PURPOSES

- Rapid Epi Assessment
- Health Coordination
- Environmental Health
- Epidemic Preparedness
- Disease Surveillance
- Standardized Case Mgmt
- Health Personnel
- Immunization Programs
- Medical Logistics

# RELIEF PRIORITIES



# ENVIRONMENTAL HEALTH

- Water supply
- Sanitation provision
- Food supply
- Shelter provision
- Vector control

# PREVENTIVE MEDICINE

## Epidemic Preparedness

- Clinical case definitions
- Case management guidelines
- Outbreak management protocol
- Sources of vaccines
- Resource prepositioning
- Public information

# CLINICAL MEDICINE

## Standardization of Case Mgmt

- Clinical case definitions
- Treatment protocols
- Essential drugs
- Referral guidelines
- Secondary prevention

# DISASTER MYTHS

## PAHO

- Immediate assistance is needed
- Medical assistance is needed
- Disaster impact is random
- Epidemic sequelae are inevitable
- Temporary settlement is beneficial
- Normality returns within weeks

# DISASTER MYTHS

## ACEP

- Disasters are focal events
- Disasters create resource deficiencies
- Disasters create serious casualties
- Rescuers handle casualty distribution
- Disaster planning is science
- Generic disaster plans work

Understanding myths helps you  
cope with realities.

Who should be on the team?

# TEAM MEMBERS

- Epidemiologist/clinician
- Environmental engineer
- Nutritionist
- Logistician

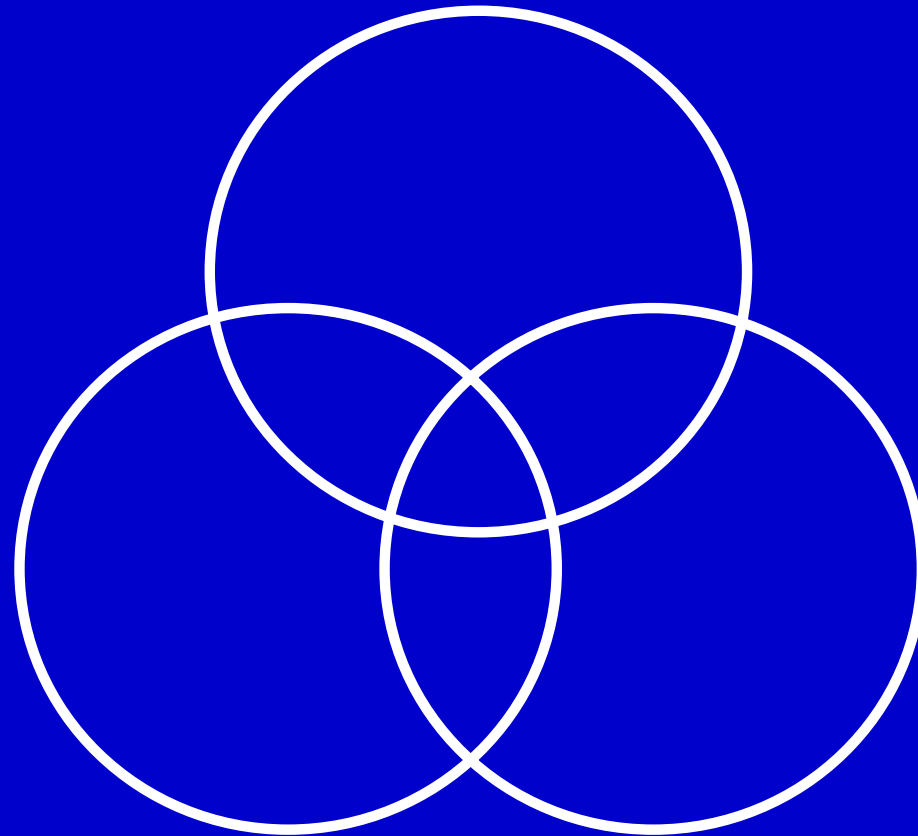
How do you select them?

# SELECTION CRITERIA

- Specialty-specific
- Disaster-specific
- Site (country)-specific
- Agency-specific
- Personality-specific

# Disaster Management

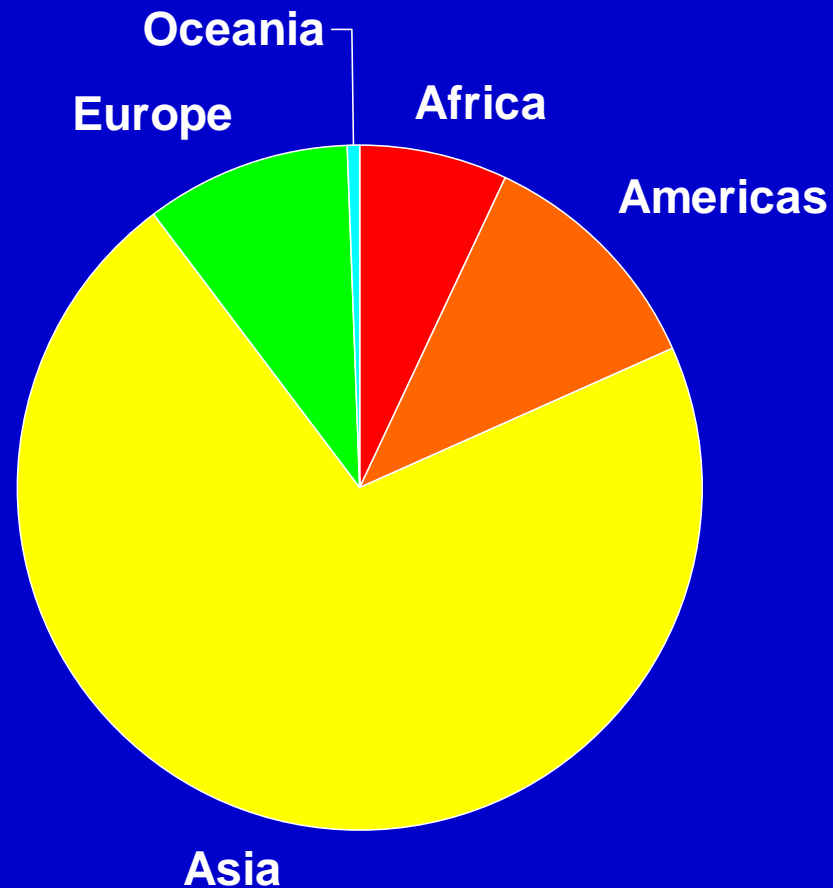
Clinical  
Medicine



Public  
Health

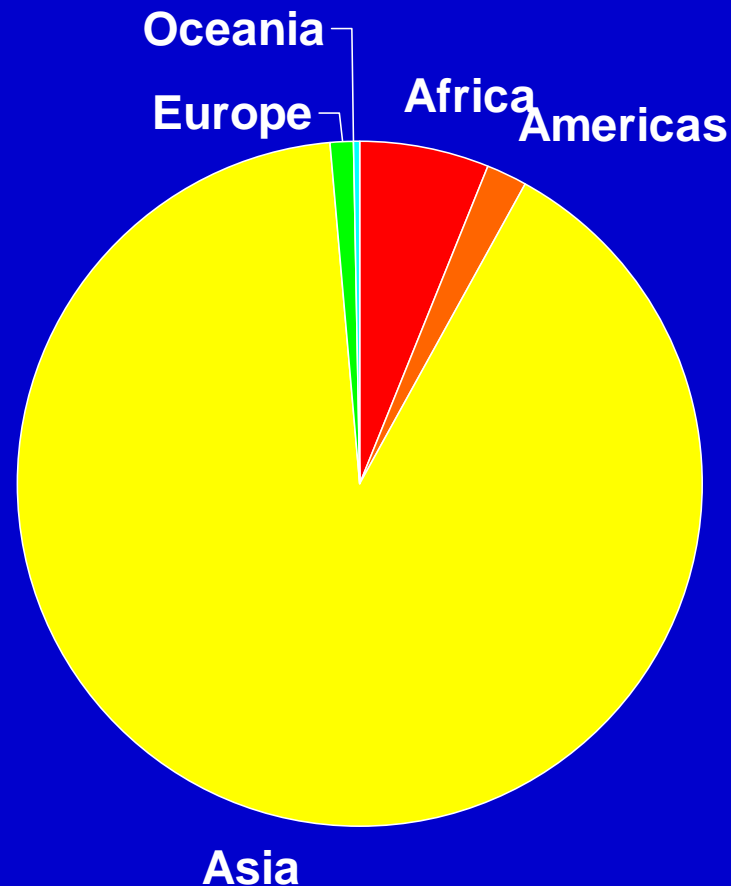
# GLOBAL DISASTER DEATHS REGIONAL PROPORTION 1994-2003

IFRC



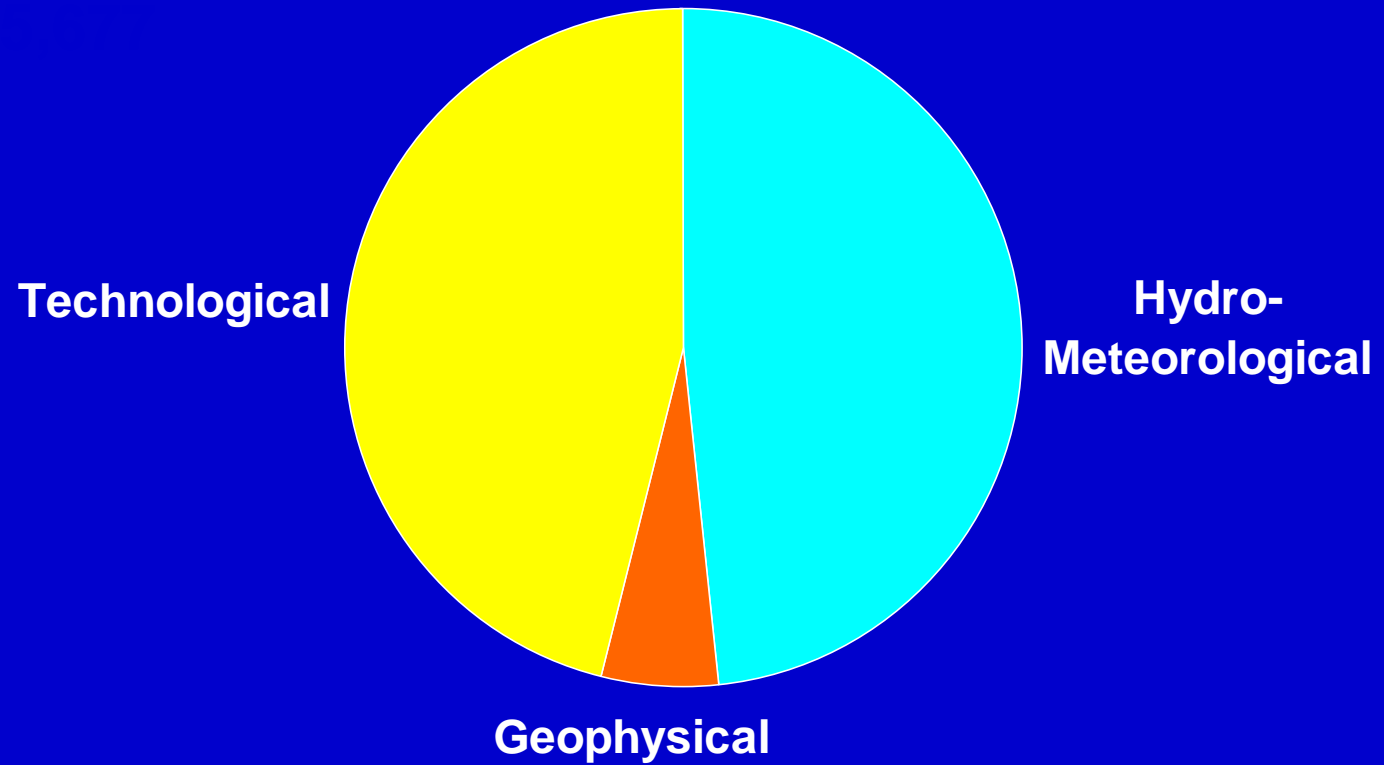
# GLOBAL DISASTER AFFECTED REGIONAL PROPORTION 1994-2003

IFRC



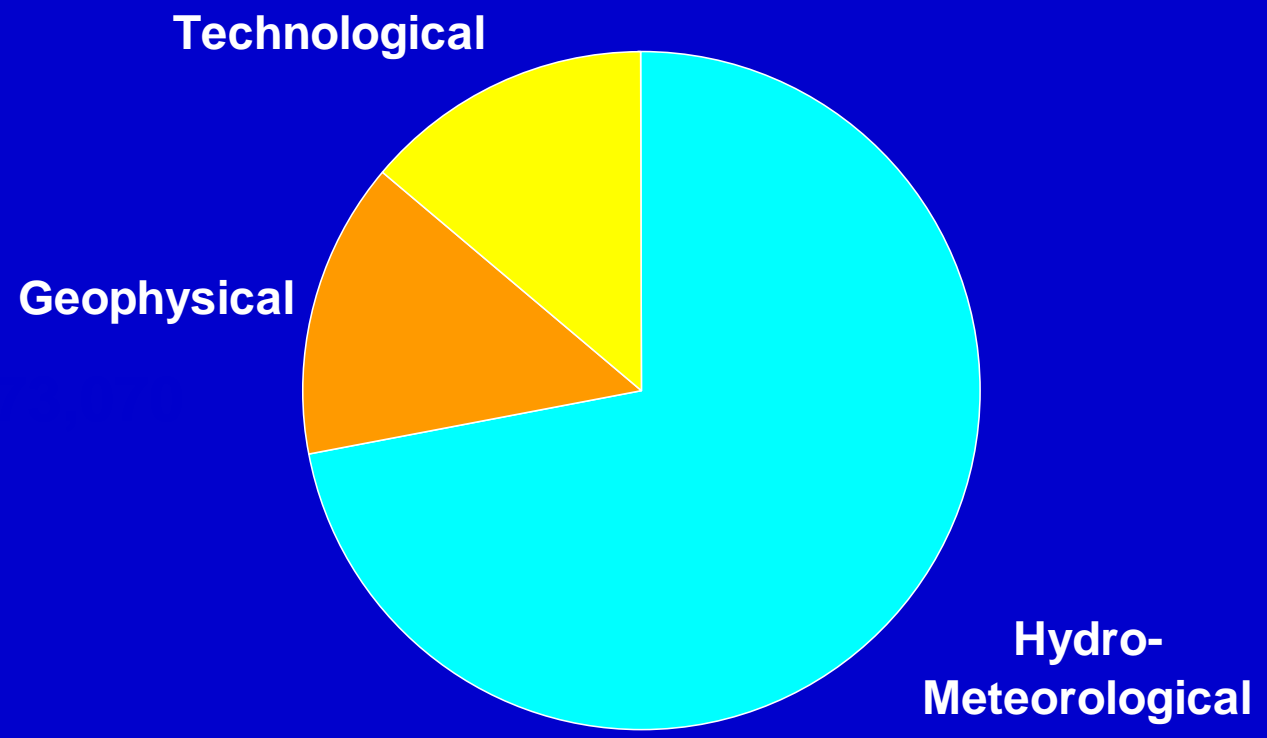
# GLOBAL DISASTERS PROPORTION BY HAZARD 1994-2003

IFRC



# GLOBAL DISASTER DEATHS PROPORTION BY HAZARD 1994-2003

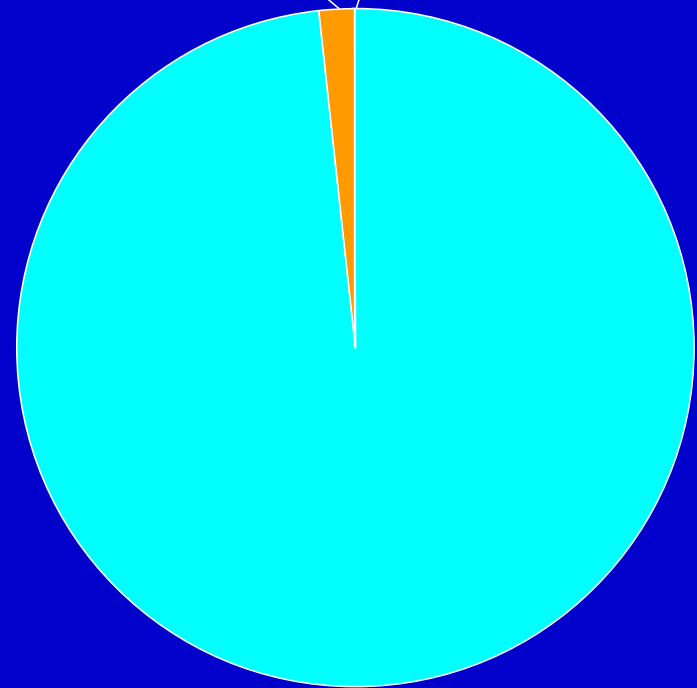
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# GLOBAL DISASTER AFFECTED PROPORTION BY HAZARD 1994-2003

IFRC

Geophysical Technological



Hydro-  
Meteorological

What field data should be collected?

# FIELD DATA COLLECTION

- Type of disaster
- Phase of disaster response
- User info requirements

# FIELD DATA COLLECTION

- Influence relief priorities
- Focus on most severely affected populations
- Provide basis for ongoing surveillance and monitoring

# FEASIBILITY OF DATA CAPTURE

- Technical
- Administrative
- Political
- Economic

# EARLY WARNING SYSTEMS

- EEWS
- FEWS
- GEWS
- HEWS
- TWS

# FEASIBILITY OF DATA CONTROL

- Coordination of assessment teams
- Collection by uniform methods
- Collation by central authority
- Integration into ongoing MIS

# FIELD DATA COLLECTION

- Analytic method
- Sampling method
- Sampling frame
- Sampling interval
- Measurement technique

# PROBLEMS IN REA

- Not performed
- Performed late
- Security constraints
- Historical data forgotten
- Current data not representative
- Current data not reliable (SMART)
- Findings misrepresented
- Findings ignored
- Assessments overdone

# FUTURE TRENDS IN REA

- Civil-military cooperation
- UNDAC
- MEDS
- PDAs
- Publicity
- Professionalization +/-

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Thank you.