Editorial: A Study of Disaster Databases

1. Introduction

The global investigation of disasters in recent years shows that their number has increased annually and the number of affected people and costs of disasters are increasing [1].

Planning for preparation in disasters requires valid and systematic data of the disaster effects and awareness of policymakers of all stages of disaster [2]. Also, with regard to increase in outcomes of the disaster effects, especially in developing countries, for prioritizing and allocating national and international budgets, we need precise information that can be compared in the entire country over time [2, 3].

Information plays an important role in empowering different staffs involved at various levels in emergencies and disasters [3]. Also, health sector as regards its responsibility in planning, preparedness, response and disaster evaluation, needs appropriate data for planning, improving efficiency and coordination [4].

However, today, information about incidence and impacts of disasters is scattered and there is no institute in charge of collecting valid information. Furthermore, there is no international standard for evaluating the damages of disaster that could be applied for all countries [3].

There are various databases in the world at national, regional, and international levels regarding collection and registration of disaster information. In the continuation, the important items in a database are being following parts.

2. Geographical Coverage

Based on this criterion, the databases of disaster data recording are classified based on international, regional, and national levels (Table 1).

3. Disaster

One of the most important features of any database is, by using special criteria, providing a definition of disaster to consider an event as disaster and then their data are collected and recorded based on this definition. Obviously, these criteria are not similar in all databases and based on goal and mission are different.

Some of databases observe and record the data of several disasters and some of them records a one kind of disaster like earthquake or Tsunami. Among databases with multi-risk data recording, the recording might include natural, technological, or man-made disasters.

4. Recorded Data of Disasters

Data collection regarding key aspects of disasters is vital in effective response to them. Timely data collection like mortality rate, health needs, investigation of infrastructures, nutrition, requirements of shelter, … are the kind of information that helps the health management and services in disasters. Besides data collection, easy searching and access to information are positive features of any database.

5. Information Accessibility and Searchability

Besides the type, quantity, and quality of the data, which are collected and registered in databases, their accessibility and searchability are other features of databases which could increase the capability od databases. Most databases which record disasters at international level like EMDAT, NATCAT, USGS, Earthquake, UNEP/APELL, Technological Disaster, DFO, Floods, MARS, and Industrial Accident provide free access to the public [5]. However, some of them have special limitations in this regard and access is limited due to security and confidentiality

Table 1. Classification of disaster recording databases based on geographical coverage [5].

Geographical coverage	Databases
International	EMDAT (Emergency Disasters Database) Munich reinsurance company (NatCat) Swiss Reinsurance Company (SIGMA) Floods (DFO database) Technological Disasters: UNEP/APELL
Regional	Asian Disaster Reduction Center (ADRC) South Africa (MANDISA database) LaRED: Desinventar (Network for Social Studies on Disaster Prevention in Latin America)

Health in
Emergencies and Disasters Quarterly

Archive of SID

EDITORIAL | Maryam Nakhaei et al. I A Study of Disaster Databases

issues. SIGMA database although an international organization does not provide free access. At regional level, Asian disaster reduction database has made access to disaster information just for member states.

Easy access to information like type of the event, country or place, year and occurrence time period, severity and size of the event, number of killed people, injured, wounded or homeless is provided in most of databases. Some databases have defined the costs imposed on injured people as searchable items besides the above mentioned items [5].

6. Data Sources

The accurate and reliable information collection is a vital part in human emergency management and it can be said that accurate information is the key to success in disaster management [6]. Thus, using valid and reliable information resources is one of the important features in databases and based on their mission and definition of disaster, they use various information resources. For example, NatCat collects its required data via national insurance agencies, press, media, UN agencies, NGOs, world meteorological organizations, customers, and insurance branches. But, no original sources is specified for this purpose. Other resources used by databases are state reports, newspapers, and scientific papers [5].

Maryam Nakhaei [1], Saiedeh Bahrampouri [2]

1. Birjand Health Qualitative Research Center, Birjand University of Medical Sciences, Birjand, Iran.

2. Department of Health in Emergency and Disaster Research Center, University of Social Welfare & Rehabilitation Sciences, Tehran, Iran.

* Corresponding Author:
Maryam Nakhaei, PhD
Address: *Birjand Health Qualitative Research Center, Birjand University of Medical Sciences, Birjand, Iran.*
E-mail: *maryamnakhaee.mn@gmail.com*

References

[1] Coppola DP. Introduction to international disaster management. Oxford, Elsevier: Butterworth-Heinemann; 2011.

[2] Guha-Sapir D, Below R. The quality and accuracy of disaster data: A comparative analyses of three global data sets. Washinghton, D.C: ProVention Consortium, Disaster Management Facility; 2002.

[3] Tad MS, Janardhanan K. The Role of Information System in Disaster Management. International Journal of Management and Social Sciences Research. 2014; 3(1):16-20.

[4] Seyedin SH, Jamali HR. Health information and communication system for emergency management in a developing country, Iran. Journal of Medical Systems. 2011; 35(4):591-7.

[5] Additional Disaster Data Resources. EM-DAT, Emergency Disasters Database [Internet]. 2006. Available from: http://www.em-dat.net/links/disasterdbs.html.

[6] Haddow G, Haddow KS. Disaster communications in a changing media world. Oxford, Elsevier: Butterworth-Heinemann; 2013.