



Urban Disaster Management: How Well Are We Prepared

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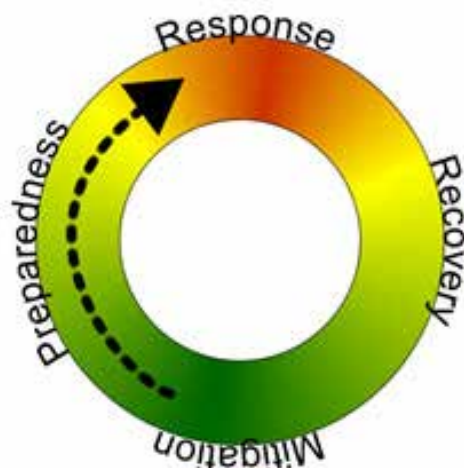
Introduction

India has been traditionally vulnerable to natural disasters on account of its unique geo-climatic conditions. Last few decades have witnessed an increased frequency in disasters causing tremendous human casualties, in terms of loss of life and disability in addition to huge economic losses. Although these may not be totally preventable but their impact can be minimized by effective planning. Equally important are the "urban disasters" like road, rail and air accidents, fire, drowning and stampedes in mass gathering, industrial accidents, explosions and terrorist attacks that have an inherent potential to convert into a mass casualty incident (MCI). The loss of life and disability are compounded by the lack of adequate medical preparedness both qualitatively and quantitatively across the country.

Governments across the globe have already recognized the importance of reducing urban risk. The Hyogo Framework for Action calls on governments to: 'Incorporate disaster risk assessments into the urban planning and management of disaster prone human settlements, in particular highly populated areas and quickly urbanizing settlements.'

Disaster

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



Disaster Preparedness

Disaster preparedness is a permanent multi-sectoral activity to which the health sector's contribution is essential. Disaster preparedness consists of:

- a) **Vulnerability analysis:** This is carried out mostly by other government agencies and the health sector's responsibility is usually limited to the vulnerability of health facilities, buildings, and services including water systems.
- b) **Establishment of a national co-ordination mechanism:** This requires that special legislation be adopted and often that an office of disaster management or civil defense be set up. It is necessary that a senior health official is at the focal point for disaster preparedness and functions as the main Health Relief Coordinator in the post-disaster period.
- c) **Preparation of Disaster plans:** Pre-disaster planning does not consist of the one-time preparation of a plan but is a continuous process in all essential public sectors such as health, water, and power. The following guidelines should be kept in mind:
 - (i) Plan for probable events and likely health needs created by disaster. To be effective, planning must be directed toward specific and realistic ends such as how to cope with unsolicited assistance and making the best use of available resources.
 - (ii) Plan for the main features of administrative response such as the location and general responsibilities of key officials. Do not complicate plans with detail. Allow for ad hoc and improvised responses to fill in gaps.
 - (iii) Subdivide plans into self-sufficient units. Adequate response to a disaster generally does not require specialized officials such as hospital administrators to know the entire plan.
 - (iv) Disseminate the plan. To function properly, people with roles in it must know of the plan, which demands considerable training. Too many good plans have failed during emergencies for lack of adequate dissemination.
 - (v) Include exercises to test the plan periodically, for plans are not realistic if they are not exercised. The absence of actual testing will largely negate even the best of abstract plans.
- d) **Communication:** It is essential to keep information updated constantly on the locations, names, telephone numbers, addresses, and duties of all key officials on the national emergency and health relief committees. Similar information must be maintained on the organizational structure and contact points of all key services in the health and related sectors. Examples are main disease control services; urban utilities including gas, water, sewage, and refuse disposal; hospitals and clinics; private health facilities; drug companies and stores; police and military forces; and the NGOs.
- e) **Resource Pooling:** The functions and respective responsibilities of civil defense, military, and police in regard to health and a hierarchy for controlling individual units must be defined. The relationship between civilian and military personnel and resources should be decided and specific provision made for the use of military services such as helicopters for surveying and assessment. Disaster scenarios once seemed merely theoretical have become a disturbing reality. The hospital disaster preparedness has there-

fore taken on an increased importance at local, state and national levels.

- f) Disaster Plan:** In areas prone to earthquake and destructive winds, each hospital should have a disaster plan designed to cope with a sudden influx of casualties. A hospital's plan should take into account the possibility of severe damage to its structure and service utilities. Hospital disaster planning has four main components: patient and staff safety in case of disaster; management of mass casualties; staff alert, recall, and deployment; and operations control including information and communications.
- g) Stockpiling:** In areas where disaster is infrequent and health budgets are small, it is uneconomic to stockpile disaster relief supplies. The expenses of storing and turning over stocks to maintain quality add substantially to the cost of the supplies themselves. Several alternatives exist: normal operating stocks in health facilities and government warehouses may be expanded to cover immediate emergency needs; neighbouring states with similar disaster potentials can develop regional stockpiles from which deliveries can be made quickly because distances within the region are short; and military stockpiles can be used since they often include drugs and equipment suitable for emergency health use.
- h) Background Data and Inventory of Resources:** Assessment of needs and interpretation of data after the impact and, in general, good management of relief operations requires access to background information on the incidence of relevant communicable diseases; nutritional status; marketing facilities and places of bulk food storage; methods of and geographic variations in water supply and sanitation; vector control and immunization programs; and possible sources of specialized assistance in nutrition, epidemiology, and other technical fields. Topographic maps showing roads, bridges, railways, and health facilities, and demographic maps indicating rough variations in total and relative density, major economic and ethnic areas, and places subject to natural catastrophes such as floods are often hard to locate in the aftermath of a disaster and should be procured and stored accessibly in advance. A detailed inventory of all material resources is unrealistic and unnecessary. A directory of knowledgeable sources of information or supplies will generally be sufficient.
- i) Training of health personnel and the public:** Satisfactory preparedness cannot be achieved solely by drawing up operational plans, stockpiling supplies, and compiling information. Health ministries and departments in disaster-prone area should embark on a comprehensive training programme. Specific training in first aid, search and rescue techniques, and public hygiene should be given to the population at risk, and health officials should be instructed continuously in their respective areas of responsibility.

Areas to be addressed

Some of the areas that could get appropriately addressed to promote culture of prevention and risk resilience in urban communities could be by addressing the following;

- 1) Regulatory control in development of hazard prone areas,
- 2) Comprehensive land-use planning with regard to hazard environment,
- 3) Structural interventions for making the buildings and other infrastructure hazard resistant
- 4) Community based disaster risk management interventions for enhancing the household level of preparedness
- 5) Improved preparedness initiatives both at city and community level can reduce potential damages and losses substantially
- 6) Preparation of Effective Contingency plans at all levels.
- 7) There is a need for having a systematic and preventive approach for forecasting events -improved early warning and effective dissemination to reach most vulnerable communities:
- 8) Available emergency management systems need to be reinforced with scenario-based contingency planning approaches.

Conclusion

The hospital's patient care role begins with and follows the disaster. The hospital's community service role begins long before the disaster as the hospital develops tests and implements its disaster plan. The objective is to prepare the hospital through the development of emergency response systems, staff training and purchase of equipment and materials so that it can continue caring for its present patients, protect its own staff and respond to the needs presented by the disaster. Finally, hospital preparedness can be enhanced more rapidly if standardized state and national guidelines for model hospital disaster management plan, staff training, disaster drills and accreditation of hospitals is ensured to combat "URBAN DISASTERS".

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