Earthquake Preparedness Plans — Building up Capacity and Readiness

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On an average, the Kathmandu Valley experiences a major quake every 75 years. The last major hit was an earthquake of 8.0 Richter scale magnitude in 1934, that claimed over 20,000 lives and destroyed an estimated 25% of valley homes.

The next big quake, well behind schedule, is expected to be even deadlier. Nepal is considered one of the world's most earthquake-prone areas because of its location along the border of the Indian and Eurasian tectonic plates. According to the Global Earthquake Safety Initiative, Kathmandu is exposed to the greatest earthquake risk per capita among 21 megacities around the world, largely due to building collapse and insufficient preparedness and medical care.

Since Kathmandu valley is one of the highest urban densities in the world, the people living in the Kathmandu valley are clearly facing a serious and growing earthquake risk. It is also clear that the next large earthquake to strike near the Valley would cause significantly greater loss of life, structural damage, and economic hardship than past earthquakes had inflicted.

Also in the event of a big scale earthquake, it is difficult to predict that how many health professionals will be in a position to provide health services to the public because health professional themselves may be the victims of the disaster.

During an emergency for the first 24 to 72 hours it is difficult to get external support and the most important aspect is the mobilization of local health human resources to deliver urgent medical care to the injured at earliest, thus saving thousands of lives and many injured from becoming permanently disabled.

Various national and international stakeholders (WHO, Handicap International, Merlin, Oxfam) have come up with plans to formulate a strategy in reducing the risks in the form of "Enhancing emergency health and rehabilitation response readiness capacity of health system in the event of a high intensity earthquake in Kathmandu valley". The purpose is to reduce avoidable loss of life, burden of disease and disabilities caused by earthquake disasters and optimize utilization of health human resources using roster and mobilize health human resources to fill the need in any Kathmandu hospitals during disaster management and early deployment of health human resources to disaster site if required.

The recommendations of the project are a mass casualty plan at the national level and for individual hospitals is a must which has proper and clear guidelines with a functional "chain of commands".

Health staff may be competent at their daily job but are unprepared physically and mentally for the influx of thousands of injured during an emergency. An intensive training in disaster scenario prepares a health personnel deal with the real like situation better. About 340 health professionals including doctors, nurses and physiotherapists were comprehensively trained in trauma protocol guidelines and rehabilitation. It has been seen that with integrated multi disciplinary approach and proper rehabilitation of the physically and psychologically compromised with increased health resources readiness to mitigate the impact of earthquake, the mortality, morbidity and rate of disabling consequences can be greatly reduced.

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Response capacity of hospitals and rehabilitation institutions are very important as some hospitals will be non functional in a major earthquake scenario. The project also recommends proper plans that include private and non-government hospitals and develop a need for referral and coordination systems between hospitals and between rehabilitation services and hospitals to cater for the large number of expected injuries who will require such care that will reflect the health service delivery in normal conditions.

At present 54 hospitals including government, private NGO run hospitals and rehabilitation centers have participated in the mapping exercise. The mapping will be used to identify the location of the hospitals, its capacity in terms of human resources including their specialties, and record the availability of trained human resources in disaster management and actual number of health professionals to be available at the time of disaster. The other plans also include testing of district health contingency plan and also to develop rehabilitation IEC materials.

Natural disasters cannot be prevented nor predicted but to decrease the impact the only way forward is to increase our capacity and readiness as an individual, community and a nation as a whole.

REFERENCES

- NSET. Emergency Country Profile of Nepal Kathmandu: WHO; 2000...
- Department of Health. Government of Philippines. Guidelines on Hospital Preparedness and Response Planning, Philippines: Department of Health; 2000.
- National Disaster Management Authority. Government of India. National Disaster Management Guidelines - Medical Preparedness and Mass Casualty Management. India: NDMA; 2007.
- WHO. Mass Casualty Management Systems: Strategies and guidelines for building health sector capacity. Geneva: WHO: 2007.