



Reviewing Reconstruction: Haiti and Nepal Experience

This situation report summarizes a journal article reviewing efforts of disaster preparedness and emergency health response post-earthquake in Haiti and Nepal; efforts put in by National Reconstruction Authority (NRA) in reconstruction post Nepal Earthquake; and a media critique on the reconstruction efforts in Nepal.

Disaster Preparedness and Response Improvement: Haiti Experience

*This is a summary of the article titled, ‘**Disaster preparedness and response improvement: comparison of the 2010 Haiti earthquake-related diagnoses with baseline medical data**’ published in European Journal of Emergency Medicine. The article was written by Gerlant van Berlaer, Tom Staes, Dirk Danschutter, Ronald Ackermans, Stefano Zannini, Gabriele Rossi, Ronald Buyl, Geert Gijssels, Michel Debacker and Ives Hubloue.*

The 2010 Haiti earthquake affected 3 million individuals, killing and injuring uncountable. The 7.0 magnitude earthquake had struck the poor country on late Tuesday afternoon just outside Port-au-

Prince, Haiti's capital. The quake was the worst in the region in more than 200 years. The earthquake's epicenter was extremely shallow at only 8.1 miles below ground, which released the energy close to the surface and intensified the shaking. The increased level of destruction led to a high loss of life. The quake left the country in shambles, without electricity or phone service, tangling efforts to provide relief to an estimated 3 million people. Most healthcare facilities and many healthcare providers were affected themselves and almost a quarter of the population was relocated in temporary shelters.

This disaster resulted in an immediate global humanitarian response. The Belgian First Aid and Support Team (B-FAST), with trained rescue, medical and logistic professionals cooperating with diplomatic and security personnel, was the first international team with an operational field hospital in the area. From day 2 after the event, the team provided acute care to about 7000 patients during the first 4 weeks after the earthquake.

A backdated descriptive cohort analysis was carried out on prospectively obtained medical records, collected by B-FAST between January 14 and February 2 2010, and compared with data prospectively collected by Médecins Sans Frontières (MSF). This is the first comparison of post-earthquake diagnoses with baseline data. The aim of this study is to document diagnoses in patients presenting to a field hospital or to outreach teams in internally displaced person camps; to compare those with baseline medical data of patients from the same area during the same time span before and after the event; and to discuss implications and formulate recommendations for future disaster-relief operations.

The major findings were that trauma cases represented more than 90% of all patients in the first 2 weeks after the event, of comparable size as reported by other foreign medical teams. In the following 2 weeks, most patients (75%) presented with medical conditions and more than half of all patients showed features of infection, mostly of respiratory and digestive, but also genitourinary and dermatological origin. Of 7000 triaged post-earthquake patients, 3500 were admitted, of whom 2795 were included and analyzed. In the fortnight after the earthquake, 90% suffered from injury. In the following fortnight, medical diseases emerged, particularly respiratory (23%) and digestive (14%). More than 53% developed infections within 3 weeks after the event.

A possible explanation could be related to the shift of all major hospitals into trauma centers and the deployment of more sophisticated field hospitals, diverting non-trauma patients to lower level field hospitals. In children under 5, respiratory and digestive problems emerged even more to the preconception of trauma-related injuries as children have a lower survival rate after serious injury. The increased proportions of post event neurological and psychological diagnoses are attributable to headaches because of stress and disrupted sleep from nightmares and anxiety, which corresponds with earlier documentation on psychological trauma following earthquakes.

Almost 38% of all patients examined by B-FAST presented with infectious diseases in the 4-week period after the earthquake. This is almost twice the baseline observed in the same period of earlier and later years. A peak incidence occurred as of the third week after the earthquake: 88% of the children under 5 and almost 45% of older patients suffered from infections.

For foreign medical teams to meet the changing needs of victims in succeeding phases of the disaster response, the first to be sent to the affected area are surgeons, anesthesiologists, intensivists and

ancillary nurses, together with the necessary equipment and supplies. There is an early role for emergency physicians, pediatricians, gynecologists, midwives and pharmacists. Foreign medical teams should scale up within 2 weeks with internists, rehabilitation teams, psychologists and public healthcare personnel. Implementation of poverty alleviation programs and educational programmes in Haiti can help to reduce vulnerability to hazards. Steps must be taken not only to integrate risk reducing measures into national plans, but also to educate the public about the importance of risk reduction.

However, this study has several limitations. B-FAST and MSF worked under different circumstances and settings. Although both teams used forms based on WHO health cards and defined diagnoses from the same manual, the lack of uniform standards to register complaints, clinical features and diagnoses made comparison of datasets challenging. Final diagnoses remain tentative because of a lack of lab and imaging equipment. Exclusion of patients because of missing data has been reported by other foreign medical teams. More research is needed to confirm the important share of medical problems in victims and internally displaced person at camps during the aftermath of different types of disasters.

HERD's Media Monitoring on Health Sector Impact and Response

HERD team carried out a month long media monitoring from April 30 to May 22, 2015 to document the health sector impact and response post-earthquake. Excerpts from the report:

Immediately after the earthquake, the Ministry of Health and Population (MoHP) began emergency services. It directed all the hospitals to provide free treatment to the victims. Because of fear, numerous people were staying at the open fields in camps for many days. With increasing poor sanitation and improper waste management in all the affected places, especially camps, the possibility of disease outbreak had also risen. During the first week after the quake, numerous people were deprived from returning home as the dead bodies which were still lying under the debris had started to rot and numerous people showed up at hospitals with diarrhoea. Concerns were conveyed at the individual and institutional level with expressions of extreme caution needed as cases of diarrhoea were likely to rise and widespread awareness was needed regarding consuming cooked or packed food; boiled or chlorinated water.

Many international bodies extended their helping hands to tackle with the situation. Emergency care services were provided by World Health Organisation in the affected districts; Indian Army through Operation Maitri provided emergency health treatment services at field hospitals in Sinamangal, Lagankhel and Gorkha; Red Cross in Dhunche; Doctors without Borders also provided services at various places; Israeli Army provided treatment by setting up a makeshift hospital in Chhauni.

On May 13, Minister for Health and Population, Khagaraj Adhikari requested international medical teams to extend their period of stay. To provide immediate effective services GoN made a decision to suspend health workers who deny going to affected areas. It further conducted public health messaging to reduce the risk of disease outbreak. As a response to disaster and emergency situation, MoHP further listed 25 government hospitals as 'central hub' hospitals. Department of Drug Administration urged the drug retailers to make drugs available immediately for emergency health treatment.

Diarrhoea outbreak was reported after a week of the quake at Haku VDC of Rasuwa. On May 19, it was reported that the number of people suffering from pneumonia and seasonal flu had risen in Kalikot. Although cases were reported in different places no epidemic was reported.

The risks of epidemic increased further as patients denied treatment inside hospitals and were provided service at the tent. Considering the possibility of epidemic outbreak, on May 19, Epidemiology and Disease Control Division (EDCD) deployed 175 doctors, including 125 foreigners, in Ramechhap, Rasuwa, Nuwakot, Sindhupalchowk, Dhading and other badly affected districts. The medical teams worked to create awareness among people about the possible outbreak of communicable diseases.

It is learnt that 260,000 children being homeless after the earthquake while 60000 pregnant and new mothers been badly affected by the earthquake. UNFPA distributed trademark dignity kits to quake affected pregnant women and lactating mothers. Cases of increased pre-term babies due to the earthquake, increasing complications for treatment of pregnant women were also reported.

More than half a million children are being targeted in an emergency vaccination drive in Nepal – as fears grow of measles outbreaks in the informal camps that have sprung up since the earthquake. UNICEF set up child-friendly open spaces in Kathmandu in order to address their issues of trauma and helplessness during this period. Likewise, UNFPA set up women friendly spaces to the affected 14 districts and WHO mobilised its aid for long-term spinal cord treatment after the earthquake.

Overall Reconstruction Efforts in Nepal

NRA Progress Report

National Reconstruction Authority (NRA) has recently come up with its first progress report on its reconstruction efforts. The summary the report is presented below:

In order to promptly complete the reconstruction work of the structures affected due to devastating earthquake of 25th April and subsequent aftershocks, in a sustainable, resilient and planned manner, and to promote national interests and provide social justice by making resettlement and translocation of persons and families displaced by the earthquake, the Legislature-Parliament has made Act Relating Reconstruction of Earthquake Affected Infrastructures Act, 2015 and established NRA.

The NRA central secretariat is located at Singh Durbar, in the building that formerly housed the Office of the Prime Minister and Council of Ministers .The NRA began work with a Chief Executive Officer (CEO), and an Acting Secretary on 28 December 2016. It now has a staff of 86 and has sub-regional offices in Dolakha, Gorkha, Nuwakot and Kavrepalanchowk districts.

The NRA began enrolling families whose homes had been damaged by the earthquake for providing reconstruction grants in March 2016. The distribution of grants to qualified households began from Dolakha District that enrolled people from Lamidanda and Laduk Village Development Committees (VDCs) and by 25 March 2016, the NRA had completed 641 grant agreements in these villages.

NRA has been coordinating the survey being carried out by more than 1600 engineers deployed in the earthquake-affected districts. The survey and documentation of over 591,000 households of 732,363 households in the 11 districts where the survey is underway had been completed by 5 April 2016. The Post Disaster Needs Assessment (PDNA) says that the earthquake of April 2015 had fully damaged 498,697 households and partially damaged another 256,617. The survey and documentation has begun in Bungamati and eight wards of Karyavinayak Municipality in Lalitpur District, and preparations are underway to carry out the Detailed Damage Assessments in Kathmandu Valley, and the remaining 17 districts.

NRA Policy Instruments

The NRA now has clear policy instruments for steering reconstruction and resettlement efforts. The Reconstruction and Resettlement Policy 2072 (2016) is the foundational document that guides all NRA activities. These policies and guidelines have clarified the roles and responsibilities of different institutions involved in reconstruction, resettlement, and livelihood support.

The Council of Ministers has approved NRAs rules and guidelines for the following interventions:

1. Housing Grant Distribution
2. Environmental Impact Assessment
3. Land Acquisition
4. Public Procurement
5. Reconstruction Regulation
6. Land Registration, and
7. Working with non-governmental organizations

The NRA is now the process of finalizing guidelines for managing human resources, guidelines for Reconstruction Fund Operation, and the guidelines for training and capacity building of masons. The NRA has begun providing budget authorizations to different ministries for reconstruction related interventions. An estimated US\$6.7 billion is needed for the successful post-earthquake recovery and reconstruction in Nepal that will be managed by a shared modality among development partners, INGOs/NGOs, community and the government of Nepal. On 6 April NRA had provided authorization for NRs.4. 7 billion for different ministries. The reconstruction of various schools buildings, health centers, heritage sites, places of tourist interest and government buildings have also begun.

Reviewing the Reconstruction: A Comprehensive Report on Status and Issues by Himal Khabarpatrika

Himal Khabarpatrika – a publication of one of the major media houses in Nepal produced a comprehensive report on the status and issues surrounding Nepal's reconstruction efforts towards April 25 earthquake. Here are the major sections of the effort:

According to statistics, following the massive earthquake the government has spent nearly NPR 23 billion for emergency rescue, relief and rehabilitation. The fund brought through international donor agencies is more than double than that of the government and amounted to NPR 55 billion.

As of 30 September, a total of \$241 million was contributed against the appeal (57 percent funded) including \$18 million from the UN Central Emergency Response Fund. Globally, Nepal is one of the well-funded countries this year. Outside of the appeal, an additional \$232 million was provided for the response. The majority of donations were given by private individuals and organizations. To complement the contributions, aid agencies also mobilized resources from their own internal funding systems.

Major Challenges: Post Quake

There are a number of logistical and programmatic challenges facing the continuing humanitarian response in Nepal.

1. It is difficult to access remote areas due to poorly maintained mountain roads, rugged terrain and thousands of landslides as a result of the two earthquakes
2. There is only one international airport servicing the landlocked country
3. There are increased threats of chronic diseases to children due to poor sanitation and hygiene, long term disabilities and psychological impact
4. Rates of acute malnutrition in children – already high 11 per cent before the earthquake – are likely to rise if timely action is not taken

Conclusion

Without any doubt, reconstruction efforts post the devastating earthquake has been quite a challenge. There have been various efforts put in by the government and non-government agencies and equally criticism from many corners. Yes, there have been pitfalls but it is high time that a consolidated effort is made with multi-stakeholder collaboration to make rebuild Nepal.

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