Key messages

Handicap International’s component of the health preparedness programme EPP in Nepal

Key messages from the independent evaluation of HI’s component of the health preparedness programme EPP in Nepal.

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December 2015
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Summary

Introduction ................................................................. 2

Key Findings on EPP ...................................................... 2

Findings regarding the HI response ................................ 5

Key Recommendations for the HI component of the EPP project ................................................................. 5

Recommendations for HI .................................................. 7
INTRODUCTION

The present independent evaluation looked at Handicap International’s contribution to the Earthquake Preparedness Project and how this contributed to the response to the 2015 earthquake in Nepal. The Earthquake Preparedness Project (EPP) is funded by DIPECHO (the European Commission Humanitarian Aid Office’s Disaster Preparedness Program) as well as the Ministry of Foreign Affairs of Luxemburg and the French Centre de Crise, and has been implemented since 2011 in connection with a consortium led by the World Health Organization (WHO), and involving Save the Children and Oxfam. The evaluation was commissioned by Handicap International (HI) in September 2015, and was conducted by an independent team of consultants (Francois Grunewald and Dr. Lakshmi Narayn Thakur) in November 2015. It was funded by the Luxemburg Ministry of Foreign Affairs.

The EPP aimed to strengthen the health sector response capacity in the event of a high intensity earthquake in the Kathmandu Valley. The evaluation had to respond to a series of questions relating specifically to HI activities and their impact during the health sector response to the 2015 earthquake. In particular, it aimed to:

- Identify/document lessons learned and make recommendations that HI in Nepal might use to improve the design and implementation of future projects. The results will contribute to better informed decision-making, foster an environment of learning and promote greater accountability for performance, both for HI and for other organizations working in earthquake preparedness;
- Establish how HI Nepal’s contingency planning, including the coordination and articulation between development (DAD) and humanitarian (DAH) teams, contributed to the response, and make recommendations about how this could be improved;
- Contribute to HI’s strategy for scaling up and replicating similar programmes in other contexts.

KEY FINDINGS ON EPP

**DRR activities proved to be very relevant despite unexpected aspects of the disaster**

The earthquakes affected a part of the Kathmandu Valley and two rural areas. Though this did not fully correspond to the “most feared scenario” (a very destructive earthquake affecting the Kathmandu Valley), most of the activities carried by HI during the different phases of the EPP made a lot of sense and contributed to a better and more effective response in the health and rehabilitation sectors.

**A relatively effective set-up that allowed HI to deliver significant outputs**

The fact that HI worked under the umbrella of a WHO-led consortium (EPP) and in close collaboration with the Ministry of Health and Population (MOHP) prior to the earthquake turned out to be very useful as this set-up significantly contributed to enhanced coordination of the response, according to many of the actors interviewed.

- The training activities of Nepalese health professionals prior to the earthquake and the efforts to introduce a “multidisciplinary approach to case management”, including by having a physiotherapist in the operating
theatre, contributed significantly to improving the performance of the system during triage, in operating theatres and in post-trauma management teams. Several health practitioners who were interviewed argued that this and the trauma protocol guidelines developed during the preparedness phase directly contributed to limiting the number of amputations. Mass Casualty Management (MCM) preparedness can save lives, but well prepared individual case management effectively saved limbs.

- Significant effort was made to work with Nepalese health professionals and their different umbrella organizations, including for the design of the manuals and protocols. This helped with the recruitment process and ensured the rapid deployment of their members immediately after the earthquake. However, the network was still being developed, with no Identification Document (ID) ready at the time of the earthquake. In addition, physiotherapists’ skills were still to be tested and the network of specialized staff for the management of stress and psychosocial issues was still under development.

- Most of the training manuals and protocols were actually ready prior to the earthquake and in use for training of health personnel and by health staff in the facilities. The links that were established with the MOHP before the earthquake made it much easier for the health cluster to rapidly reprint these documents in the days just after the earthquake and to ensure that they were distributed to all incoming Foreign Medical Teams (FMT) registered at the Health Emergency Operations Centre (HEOC). This contributed to a much better and more coherent health response. The existing information, education, and communication (IEC) materials were very useful, but extra subjects, such as fracture management and assistive devices, would have been of great help. Furthermore, it was quite challenging to find the prepositioned IEC stock and the focal person in charge of distributing it within each structure.

- The training of rehabilitation professionals in using assistive devices (e.g. emergency wheelchairs) proved to be useful during the earthquake response. However, the amount of prepositioned stock turned out to be insufficient, running out after only a few days.

- Mass Casualty Management and Injury management must be comprehensive to ensure appropriate continuity of care, from appropriate first aid, rescue, triage, and surgery to wound care, early rehabilitation, and follow up in different kinds of environments (hospitals, communities, and rehabilitation centres). The first steps of mass casualty management were put in place very quickly thanks to the response capacity developed through the EPP project. More comprehensive mapping of all the structures and possible actors would have been useful but was not HI’s responsibility in the EPP consortium. Many of the sources interviewed indicated that triage was relatively well organised with red, yellow and green zones rapidly established. As well as the earthquake victims, the hospital staff also had to deal with all the patients who had been evacuated and were afraid of aftershocks. The hundreds of volunteers who came to help and the large number of patients who refused to go back to
their wards due to the aftershocks made the situation chaotic. HI help desks were set up rapidly and played an important role in the first days by providing patients with information. Coordination between the different desks was essential but not sufficiently effective.

- **Due to the prepositioning of drugs and equipment (drugs and surgical equipment by WHO, mobility and rehabilitation devices by HI), the project helped to rapidly supply operational wards and areas where patients were waiting.** This made surgery and rapid discharge easier. However, hospitals ran out of stock rapidly and were not resupplied as quickly as expected. In addition, equipment required for specific treatment was not present in the stocks. On the basis of discussions with Nepali health professionals managing the response at the hospital level, HI became aware that the delays in drug resupply due to WHO procurement procedures represented a risk for its own operations (risks linked to inappropriately implemented surgical interventions) and thus procured the needed items as an exceptional measure.

- **Either spontaneously or through HEOCs’s initiative, most of the emergency cases were transferred to Kathmandu during the first 6 days. While this was not always ideal, it was a wise decision as it allowed better case management, due to the poor conditions in many health structures in the districts.** While some facilities were underused, others struggled to provide quality care to patients and had to discharge some who were still in need of care. The lack of a clear referral system was the main reason for underutilization/overloading.

![A lot of the activities that were developed under this programme are increasingly seen by Nepalese health professionals as having a much wider scope than just “earthquake preparedness”. They have also significantly influenced the ability to respond to the growing number of road accidents or other serious accidents, where the number of wounded people is significantly higher than on a normal day.](image)

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**Shortcomings and areas for improvement**

- **Specific weaknesses were observed in the recording of information during the first days and in the referral system for case follow up and continuity of care. Data management and the recording of case information were very haphazard during the first days, leading to difficulties for follow-up after discharge.** The relatively rapid establishment of Vulnerability Focal Points (VFP), which was made possible by HI’s high level of visibility before the earthquake, aimed to facilitate the identification of focal reference persons in the wards, outside the hospitals and within the community. This turned out to be extremely useful and, at the same time, was not used enough as the system had not yet been sufficiently established and VFP capacity building had not yet been fully implemented within the EPP. Resources of this kind and the role they can play in responses should be emphasized in the future (important role in terms of identification, awareness raising and the referral pathway; they are also a great source of information regarding access to services and local initiatives).

- **Furthermore, the role of psychosocial workers was not sufficiently anticipated or emphasised in the pre-earthquake preparedness activities, despite the importance of this sector of activity in disaster response contexts.** As physiotherapy and rehabilitation had only begun to be included in emergency case management, it was not possible to put them into operation in the hospitals as effectively as expected.

- **The setting-up of the Injury and Rehabilitation Sub-cluster was part of the Ministry of Health and Population’s contingency plan, developed during the preparedness project, but this lacked operational planning as to who**
would do it and how it would be done. It was actually initiated by the WHO Foreign Medical Team Coordination Cell, with strong support from the UK Emergency Medical Team (UKEMT), in which HI–UK is an operational partner.

- Several witnesses indicated that the training of “light Search and rescue teams” did not fully take into account some key points about how to move wounded people properly (to and from hospitals) while this would normally be part of normal search and rescue training. The HI team were not sufficiently involved in these activities, thus leaving a significant gap in the design and content of the mock drills and CBDRR activities with Kathmandu city dwellers.

- The project underlined the contrast in terms of means and capacities between Kathmandu health infrastructures and those of the periphery. For example, within the Kathmandu valley, Bhaktapur hospital, which is considered to be sufficiently equipped and staffed to be designated a “hub hospital”, had no orthopaedic surgeon available in the immediate aftermath of the earthquake. The further one travels from Kathmandu, the greater the gap in terms of means and capacity.

**Findings regarding the HI response**

- The HI response was partly designed using the HI Contingency Plan, which was drawn up in 2013 under DIPECHO 6 with support from the French Ministry of Foreign Affairs’ Crisis Centre. The 2014 Contingency Plan and its Action Plan were first tested with the 2014 floods. While the 2015 Action Plan was still in the process of being developed when the earthquake occurred, several interviewees indicated that, despite being incomplete (identification of possible suppliers, etc.), it greatly facilitated the identification of operational priorities in the response.

**Key recommendations for the HI component of the EPP project**

The 2015 Nepal earthquake was not the mega-earthquake that was expected in the country. Nepal sits on a dangerous fault line that is still on the verge of releasing pressure with the intensity of Richter 8.5 or above. Preparedness therefore continues to be essential, and the following recommendations are made with this in mind:

- Efforts to ensure the early presence of physiotherapists and rehabilitation specialists as part of inclusive “emergency medical teams” should continue and should be an essential part of “routine” work in hospitals. “Health preparedness activities” including physiotherapy and psychosocial support should be integrated into the government’s regular programme of work and the health sector’s Sector Wide Approach (SWAp).

- HI or Nepalese rehabilitation professionals trained under the HI programme should take part in mock drills in health structures more systematically. This should also be regular practice in terms of health facility preparedness.
• Early rehabilitation, discharge and follow up must be included in preparedness both for physical and mental trauma. This means that they should be much more clearly included in all contingency plans (rehabilitation prescription protocols, discharge protocols and psychosocial first aid). A logistical plan regarding both transportation and accommodation for injured people in need of medical care and rehab is required.

• Guidelines for crowd and volunteer management and protocols for pre-disaster in-patient management and referral to physiotherapist and psychosocial support should be developed. Coordination should start at the help desk in order to define clear objectives in terms of mapping, information and data collection. This could be dealt with and included in a wider approach with “Vulnerability Focal Points”. Although these were not initially meant to be in hospitals, they served during the recent earthquake as “orientation hubs”. During the first days after the earthquake, these multi-task « orientation hubs » were less effective when they were outside hospitals. They should therefore be prepared in advance so that they can be put into operation when an earthquake or other disaster takes place. This set up could also solve one of the difficulties encountered during the first days, which is that patients are not registered, thus causing problems for case follow-up and continuity of care.

• The achievements of the project should be replicated in other parts of the country and in more facilities in the valley, both in the public and private sectors. The relevant health authorities have been part of the process from the beginning of the project and this has contributed significantly to their sense of ownership. This will be critically important for localised disasters in different areas of the country, and for similar or bigger earthquakes in the Kathmandu Valley.

• The capacity of health facilities and key staff to conduct a quick assessment of needs and capacities after the earthquake and to properly report on the results of these assessments is essential and could be further developed.

• Further action is needed in non-structural retrofitting to ensure that the health services are made fully earthquake prepared if HI wants to promote an image of excellence in disaster preparedness. Partial and sometimes insufficient non-structural mitigation measures (such as fixing heavy equipment and beds1 to walls in order to prevent dangerous movements when a tremor takes place) were observed in the hospitals visited, especially in physiotherapy/rehabilitation services.

• Increase awareness about disability and the benefits of early rehabilitation in first aid training and capacity development at community level, and develop skills to improve the referral of people in need of rehab care and psychosocial support. Protocols for managing common injuries in order to prevent primary and secondary disabilities should be part of this community level training. The presence of information systems and services for people with new and pre-existing disabilities could be further developed in communities in order to improve outcomes and reduce vulnerability. This could be part of a wider urban DRR project with a larger community preparedness component.

• Strengthen the District Emergency Operating Centre (DEOC), institutionalize the leadership/role/functions at the District level for proper ICS during disaster response and clarify the roles of the different response players for effective information, communication and coordination to support the HEOC and the deployment of a coherent and inclusive health response.

1 The system for fixing beds should be simple and easily “unlockable” so that they can be moved quickly.
**Recommendations for HI**

- For HI internally, the efforts on contingency planning should continue, with a higher diversity of scenarios (depending on the type, location and scale of hazards) to be fully developed and prepared for. The existence of a more versatile contingency plan at country level and the contingency plan development process should serve as a basis for agile interventions, in a way that articulates development and emergency better.

- As this type of programme has proven to be very useful, HI should explore how to develop it further within Nepal and replicate and adapt it in other contexts with similar risks. The table below lists the key elements required for proper scaling up and duplication.

### Key Messages for Scaling Up and Duplication:

- Mass Casualty Management procedures are essential and require the proper assessment and proactive allocation of existing space, the prioritization of the movement of patients, dead bodies and medical staff, specific equipment for triage, medical equipment and discharge procedures;

- Proactive structural and non-structural retrofitting of health structures is essential for post-earthquake responses: this will ensure that a basic capacity for treating earthquake victims remains in place. This should be seen as a core priority for any Health Emergency Preparedness effort;

- Ensure that basic redundancy in energy provision and in telecommunication systems is in place: a blind, deaf and dumb health system is idle and ineffective during an emergency;

- Proactive integration of rehabilitation needs and risks of disability within case management, including in the operating theatre is critical to reduce the number of amputations and to ensure that there is proper surgical ad post-surgery care;

- Proactive integration of rehabilitation needs and risks of disability in the training and procedures of light search and rescue teams and first aid teams is critical to reduce the occurrence of inappropriate movement of victims leading to the risk of new disabilities;

- Ensure that mechanisms for timely case recording are in place in order to facilitate case management and continuity of care, as well as psychosocial support and humanitarian assistance to discharged medical cases;

- Improve the prepositioning of key items, including mobility devices, in a way that will be cost effective for the national budget and effective for the first 2–3 days of the response. This implies increased discussion between aid agencies and procurement staff in hospitals and with the Ministry of Health’s financial department;

- Ensure that protocols for better articulation between case management protocols and rehabilitation guidelines are in place and available to FMT prior to deployment;

- Ensure that multiple risk analysis is conducive to multi-scenario planning by basing the definition of scenarios less on “severe, medium and low” gravity and more on a combined analysis of frequency and gravity. This will allow for a more agile attitude to scenario and response.