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Prof. Dr. Anjani Kumar Jha
Executive Chairman
Nepal Health Research Council
Executive Summary

Background

Nepal experienced a massive earthquake on 25th April, 2015 measuring 7.8 Richter scale followed by large aftershock on 12th May that further added to the destruction, especially in Sindhupalchowk and Dolakha. On request of Government of Nepal, international community extended financial and technical assistance to overcome the impact of the earthquake. Foreign Medical Teams (FMTs); now known as emergency medical team, from different countries and volunteers from within the country had helped in health service delivery. Although Nepal had experienced devastating earthquake in 1990 BS and earlier the working procedure responding to the earthquake at that time were not well documented. So, the need for documenting the working procedure and the effectiveness in response to post-earthquake scenario was realized so that it can be a lesson for future events of such nature. Thus, a thorough review of the effectiveness (especially their deployment, functionality, perspectives of the district authorities, health workers and local people) of the FMTs’ response, was planned to get a clear picture of Strengths, Weaknesses/Gaps and Areas of Improvement that would be very important in making the response better in any future events of such scale when discussed and shared with all relevant stakeholders in Nepal. This documentation once shared with the international community would also help them learn from Nepal’s experience.

Methodology

It was a multi-method study. Both quantitative and qualitative approaches were used to have an in-depth overview of the research question and the objectives set for the study. Records and reports relating Foreign Medical Team Coordination Committee (FMTCC) and meeting minutes of Health Emergency Operation Centre were reviewed. For feedback survey from foreign medical teams, the FMTCC Created the online questionnaire using Google forms® and Survey Monkey® (The initial feedback survey used Google forms and the second survey used Survey Monkey).

Health workers involved in service delivery in different government and private health facilities participated in focused group discussions (FGDs) of health workers. Community members in most affected areas of the district participated in FGDs of the earthquake survivors. Health workers involved in service delivery with some managerial responsibility or key role in health facilities such as district health officers, medical superintendent, and emergency in-charge were considered for key informant interview (KII). Earthquake victims who sustained some injury or health problems during earthquake and received service from foreign medical team were selected for in-depth interviews (IDIs). Quantitative data were analyzed in Microsoft excel. Qualitative data were transcribed, coded and analyzed using thematic analysis technique manually.
Findings

Total of 8,962 deaths and 22,302 injuries occurred following earthquake of which 8,864 deaths and 21,156 injuries occurred in the most affected 14 districts of Nepal. In FGD and KIIs, most of the participants highlighted the earthquake had a huge impact on infrastructures. A large number of casualties were reported immediately after earthquake. Health facilities were overloaded with injured patients. Psychosocial problem like getting scared, forgetting things were also reported, although they were less common. In most cases, in district level, patients were treated on the ground in absence of adequate space or collapse of buildings of health facilities. Health workers were mobilized immediately after the earthquake with pooling of staffs from less affected areas or assigning double duty.

One hundred and thirty-seven FMTs from 36 countries worked in Nepal to provide medical relief. Of the total FMTs providing relief work, 70% of the FMTs were from non-government and non-military agencies, 18% of the FMTs were from civilian government agencies and 12% from military agencies. Twenty percentage of the FMTs had the capacity of full field hospitals. Among the human resources in the FMTs, most of them were Doctor (42%) followed by allied health personal (23%), nurses (18%), logistic (9%) and administrative personnel (7%). Most of the FMTs were deployed in Kathmandu (18%) that had highest number of injuries (7,950) followed by Sindhupalchowk (18%) that had highest number of deaths (3,570).

Most FMTs (48%) reported that information provided in the FMT coordination meeting before tasking was good. Regarding usefulness of information received at FMT coordination meeting (during operation), higher percentage shared that it was average (44%).

Lack of preplanning and preparedness on disaster management was raised by research participants as one of the main challenge in dealing with post earthquake phase. Language barriers, lack of follow up, use of expired medicines in some cases, inadequate availability of equipments, differences in treatment procedures, inadequate orientation to local context and focus on publicity rather than the humanitarian efforts by some teams were the major issues in mobilization of and working with FMTs.

Health workers stressed on the need of Planning and preparedness of disaster management including construction of earthquake resistant buildings for health facilities and activation of disaster team. Similarly, maintenance of adequate stock of basic logistics and appropriate manpower, training health workers on handling emergency cases, developing appropriate mechanism to mobilize health workers within country were the key suggestions for improvement of response in post disaster phase provided by health workers.
Conclusion

More than one fourth of the injured patients were in Kathmandu, followed by Sindhupalchowk, and significant numbers of injured patient were observed in Rasuwa, Dhading and Gorkha. Majority of the death were reported in Sindhupalchok followed by Kathmandu, Nuwakot and Rasuwa whereas most of the injured cases were reported in Kathmandu district. To cater the health needs of Nepalese people in post disaster phase, one hundred and thirty-seven FMTs from 36 countries worked in Nepal to provide medical relief.

Timely preparation and readiness of the procedures to handle the FMTs including their registration process, medical licensing procedures, procedures of coordinating mechanisms with the district, case management and treatment guidelines to be followed by the FMTs are crucial to have a better health sector response including that of FMTs.
### List of Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>ART</td>
<td>Anti-retroviral Therapy</td>
</tr>
<tr>
<td>DHO</td>
<td>District Health Office</td>
</tr>
<tr>
<td>DPHO</td>
<td>District Public Health Office</td>
</tr>
<tr>
<td>EDCD</td>
<td>Epidemiology and Disease Control Division</td>
</tr>
<tr>
<td>ET</td>
<td>Endo-tracheal Tube</td>
</tr>
<tr>
<td>FGD</td>
<td>Focused Group Discussion</td>
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<tr>
<td>FMT</td>
<td>Foreign Medical Team</td>
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<tr>
<td>FMTCC</td>
<td>Foreign Medical Team Coordination Committee</td>
</tr>
<tr>
<td>GoN</td>
<td>Government of Nepal</td>
</tr>
<tr>
<td>HEOC</td>
<td>Health Emergency and Operation Centre</td>
</tr>
<tr>
<td>HP</td>
<td>Health Post</td>
</tr>
<tr>
<td>HW</td>
<td>Health Workers</td>
</tr>
<tr>
<td>ICU</td>
<td>Intensive Care Unit</td>
</tr>
<tr>
<td>IDI</td>
<td>In-depth Interview</td>
</tr>
<tr>
<td>KII</td>
<td>Key Informant Interview</td>
</tr>
<tr>
<td>MoH</td>
<td>Ministry of Health</td>
</tr>
<tr>
<td>NGO</td>
<td>Non Governmental Organization</td>
</tr>
<tr>
<td>NHRC</td>
<td>Nepal Health Research Council</td>
</tr>
<tr>
<td>NPHL</td>
<td>Nepal Public Health Laboratory</td>
</tr>
<tr>
<td>OPD</td>
<td>Outpatient Department</td>
</tr>
<tr>
<td>ORS</td>
<td>Oral Rehydration Solution</td>
</tr>
<tr>
<td>OT</td>
<td>Operation Theatre</td>
</tr>
<tr>
<td>PHCC</td>
<td>Primary Health Care Centre</td>
</tr>
<tr>
<td>PPICD</td>
<td>Policy Planning and International Cooperation Division</td>
</tr>
<tr>
<td>RDC</td>
<td>Reception and Departure Centre</td>
</tr>
<tr>
<td>SAR</td>
<td>Search and Rescue</td>
</tr>
<tr>
<td>SHP</td>
<td>Sub Health Post</td>
</tr>
<tr>
<td>VDC</td>
<td>Village Development Committee</td>
</tr>
<tr>
<td>WASH</td>
<td>Water, Sanitation and Hygiene</td>
</tr>
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<td>WHO</td>
<td>World Health Organization</td>
</tr>
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</table>
Table of Contents

Acknowledgements i
Executive Summary ii
List of table vii

Chapter I: Introduction 1
  1.1 Background 1
  1.2 Statement of the Problem and Rationale 1
  1.3 Objectives of the study 2
  1.3.1 General Objective 2
  1.3.2 Specific Objectives 2

Chapter II: Methodology 3
  2.1 Study design 3
  2.2 Study area and study participants 3
  2.3 Sampling 3
  2.4 Data Collection tools 4
  2.5 Data collection techniques for FGDs, KIIs and IDIs 4
  2.6 Data collection technique for data from FMTs 4
  2.7 Feedback survey 5
  2.8 Quality of the data 5
  2.9 Data management and analysis 6
    2.9.1 Field notes 6
    2.9.2 Transcription and analysis process of qualitative data 6
    2.9.3 Analysis of quantitative component (patient data from FMTs, records of FMT registration, deployment and exit) 6
  2.10 Limitation of the study 6

Chapter III: Findings 7
  3.1 Status of casualties after earthquake 7
    3.1.1 Casualties following earthquake 7
    3.1.2 Threat of epidemic following earthquake 8
  3.2 Response in post earthquake scenario 8
    3.2.1 Management of victims 9
    3.2.2 Deployment process and response of FMTs 9
      3.2.2.1 FMT registration 9
      3.2.2.2 FMT deployment 12
      3.2.2.3 Service delivery by FMTs 14
      3.2.2.4 Coordination with FMTs 16
      3.2.2.5 Reporting by FMTs 18
      3.2.2.6 Exit process of FMTs 19
    3.2.3 Challenges and suggestions for improvement of post disaster response 20
List of table

Table 1: District wise breakdown of death 7
Table 2: Registration status of Foreign Medical Teams 10
Table 3: Type of Foreign Medical Teams (Government, Military, NGO) 11
Table 4: District wise breakdown of different type of Foreign Medical Teams 12
Table 5: Human resource capacity of Foreign Medical Teams 12
Table 6: Full-field Hospital set up by Foreign Medical Teams 14
Table 7: Number of Foreign Medical Teams by type of service delivery 15
Table 8: Perception of Foreign Medical Teams regarding coordination and management (Foreign Medical Team internet survey) 18

List of figure

Figure 1 FMT types in country by date of arrival 11
Figure 2 Number of FMT deployed VS. reported deaths and injuries 13
Chapter I: Introduction

1.1 Background

Nepal experienced a massive earthquake on 25th April, 2015 measuring 7.8 Richter scale with 479 numbers of aftershocks with local magnitude of more than or equal to 4 richter scale until 4th February, 2017 (1). Barpak VDC in Gorkha district, 80 km northwest of Kathmandu was the epicenter. As reported by the government, it claimed 8,962 lives across several districts in Nepal with 22,302 injuries (2). Many villages were flattened, while some were left with only a few standing houses. Physical destruction and damage aside, this mega-disaster left the Nepalese people mentally and emotionally drained. Sindhupalchowk, Nuwakot, Rasuwa, Dhading, Gorkha, Kathmandu, Lalitpur, Bhaktapur were some of the hardest hit districts. Furthermore, the largest aftershock on 12th May, 2015 added to the destruction, especially in Sindhupalchowk and Dolakha. Sindhupalchowk reported the highest number of deaths followed by Kathmandu and Nuwakot.

Disaster preparedness of the health sector appeared worthwhile, as within 45 minutes of the devastating earthquake, Health Emergency and Operation Centre (HEOC) was in action at the Ministry of Health (MoH). HEOC alerted all the hospitals in Kathmandu and outside Kathmandu. HEOC instructed Dhading and Gorkha District Hospitals to refer patients to Chitwan and Pokhara to minimize the referral case load in Kathmandu Hospitals. Likewise, the National Emergency Operation Centre was already activated by Ministry of Home Affairs to coordinate and facilitate the search and rescue and medical evacuations without any delay. The Government of Nepal declared a state of emergency and made an official request for international assistance within few hours of earthquake. Within two hours of the earthquake, the meeting of the Central Natural Disaster Relief Committee was held in which the National Emergency Operation Center provided initial reports. The government’s Cluster mechanism which has 11 sectors was immediately activated and an official appeal for international assistance was made on the very first day (3). As a result, along with many, search and rescue (SAR) teams, Foreign Medical Teams[now termed globally as emergency medical teams (EMTs)] arrived in Kathmandu within a couple of days, while among those some Foreign Millitary Medical Teams arrived in Day I. Thus the health sector response from the existing health care system was coupled with the assistance of foreign medical teams (FMTs).

MoH led the health sector response which was supported by international and national partner organizations. This was Nepal’s first experience in responding to a major disaster in eight decades. A total of 150 FMTs came to Nepal for medical relief and 137 teams provided health care services. They were deployed to different districts, according to their capabilities and need of the districts.

1.2 Statement of the Problem and Rationale

International experience, especially in Haiti earthquake and Pakistan flood revealed that deployment of FMTs were not adequately matched with capability. Nepal had an influx of
FMTs with a wide variation in capacities and competencies. It was also necessary to ensure the teams’ adherence to professional ethics. The teams were often unfamiliar with the national or international emergency response systems and standards, and not integrated smoothly into the usual coordination mechanisms. The teams arriving to the MoH were deployed in a less organized way in the beginning so the Nepal Army who was given the lead by GoN for the first phase of disaster did the initial coordination days. The deployment, coordination and return of the FMTs were gradually made systematic by MoH in coordination with WHO EMT coordination team and made more organized within a week. In addition, the response of the existing health care delivery system as well as additional local teams from different medical colleges, hospitals and organizations on a timely basis, which also presents a case for carrying out this review. In order to ensure smooth functioning of the response work MoH decided to form seven teams to manage several aspects including FMTs under the leadership of assigned senior level authority on 2073/01/14 (27th April 2015). One of the teams was formed to manage FMTs and this team later developed itself to a coordination cell so as to coordinate the FMTs and was named Foreign Medical Team Coordination Cell (FMTCC). Couple of days later the global coordinator of FMTs from WHO also arrived and joined the FMTCC to jointly coordinate and manage the FMTs in responding to the health sector needs.

Hence, a thorough review of the effectiveness (especially their deployment, functionality, perspectives of the district authorities, health workers and local people) of the FMTs’ response was planned to get a clear picture of strengths, weaknesses/gaps and areas of improvement that would be very important in making the response better in any future events of such scale when discussed and shared with all relevant stakeholders in Nepal. This documentation once shared with the international community would also help them learn from Nepal’s experience.

1.3 Objectives of the study

1.3.1 General Objective
To review the effectiveness of the FMTs’ response to the aftermath of Nepal earthquake 2015

1.3.2 Specific Objectives
- To review and document the overall response of the FMTs
- To review the processes of FMT deployment
- To review the management and coordination of FMTs by the FMTCC at the MoH
- To identify the strengths and weaknesses in the management of FMTs
- To assess the service delivery and functionality of FMTs in meeting the health needs of immediate post disaster and early recovery phase
- To assess the perception of concerned stakeholders towards the FMT’s response to health sector needs
- To identify the key challenges/gaps and facilitators in managing the health needs in an emergency and early recovery phase.
Chapter II: Methodology

2.1 Study design
Quantitative and qualitative approaches were mixed to have an in-depth overview of the research question and the objectives set for the study.

2.2 Study area and study participants
The study was carried out in the fourteen most Earthquake affected districts of Nepal in 2015 namely Sindhupalchowk, Nuwakot, Rasuwa, Dhading, Gorkha, Kathmandu, Lalitpur, Bhaktapur, Dolakha, Ramechhap, Sindhuli, Okhaldhunga, Kavrepalanchok and Makwanpur.

Secondary data
- Records and reports at the FMTCC for reviewing the processes and management of FMTs.
- Available records of the FMTs as they reported during their deputation to different areas of earthquake affected districts were also included in the study.
- The meeting minutes of HEOC and FMTCC were also included.

Primary data
FMT members of the teams registered and deployed were interviewed for gathering information on their experiences, challenges and opportunities in delivering the service in the affected districts.
Health workers involved in service delivery in different government and private health facilities participated in focused group discussions (FGDs) of health workers. Community members in most affected areas of the district at the time of earthquake participated in FGDs of the earthquake survivors. Health workers involved in service delivery with some managerial responsibility or key role in health facilities such as district health officers, medical superintendent, and emergency incharge were considered for key informant interview(KIIs). Earthquake victims who sustained some injury or health problems during earthquake and received service from foreign medical team were selected for in-depth interviews (IDIs).

2.3 Sampling
For the secondary data all the records and reports including the meeting minutes of the FMTCC as well as meeting minutes of the HEOC were reviewed. For the survey of FMT members, all the teams in the FMTCC record were included. For qualitative component of the study, sampling was done based on the theory of saturation. FGDs, IDIs, and KIIs were carried out till the information was saturated and no new information was generated with repetition of the FGD, KII orIDI. Total of 23 KIIs, 14 FGDs and 3 IDIs were conducted for the study.
2.4 Data Collection tools
Separate FGD guidelines for healthcare workers and earthquake survivors were used to elicit information about the experience of working with or being treated by FMTs. KII guideline of health care worker contained issues to be explored such as deployment of FMTs, issues related to coordination with FMTs, challenges in FMTs response to the earthquake and lessons to be learnt from FMTs. IDI guideline for earthquake survivors treated by FMTs covered key issues to elicit their experience related to being treated by FMTs. FGDs and interviews in overall, attempted to elicit the experience of participants regarding the earthquake, damage and loss of property and resources sustained due to earthquake, major health challenges, immediate rescue efforts, and effectiveness of the service delivered by national and foreign medical team, government response, gaps and challenges in response to post disaster scenario.
For the survey of FMT members, a structured questionnaire was designed to be used for internet survey.

2.5 Data collection techniques for FGDs, KIIs and IDIs
One moderator and two note-takers were involved conducting FGD and on an average one FGD lasted for forty five minutes to one hour. Best possible attempts were made to bring about natural and neutral setting in FGDs. Preceeded with informal conversations, FGDs and interviews were conducted in relaxed manner to encourage participants to express their views openly without any hesitation. To counter the natural inclination to agree to opinion from other participants and deliberate with holding of differing opinion, emphasis was given to equal participation of all and participants were convinced that there is no right or wrong answer. FGD guidelines were developed in English and translated into the local language (Nepali) by the experts. Technical jargons were avoided and questions were rephrased in language that participants understand. Discussions were audio recorded and field notes were also taken, including every minute detail of discussion, to complement the transcribed notes. Field researchers conducted the FGDs which were supervised by lead researcher. Participants in each FGD ranged from 6 to 12, large enough to elicit a variety of perspectives and small enough to be well managed and orderly with each participant having enough time and motivation to express. Moderator attempted to be empathetic to the suffering and sensitive to their culture to keep them in the comfort zone throughout the process of discussion or interview.
Full transcription of the FGD/KII/IDI was prepared within the same day using audio record and notes taken during the interview. Developed transcripts were discussed thoroughly in the research team to identify confusing issues that need further exploration. Issues that need clarification or exploration were covered in the following interviews

2.6 Data collection technique from FMTs
A large portion of quantitative data collection was based on records in the FMTCC relating to the service delivered by FMTs. The data from the FMTs for assessing the challenges and
opportunities and lessons learnt during the registration, deployment and exit were collected through internet survey. The data related to the management, coordination including registration, deployment and exit of FMTs were taken from the records of FMTCC. Related documents from National Planning Comission and other related agencies were also reviewed for the purpose of acquiring information from secondary sources.

2.7 Feedback survey
The FMTCC created the online questionnaire using Google forms® and Survey Monkey®. (The first round of survey used Google forms and the second survey used Survey Monkey) Using the contacts of the FMTs maintained in the contact list of FMTCC the first round of survey was conducted from early June to September 2015. Owing to the poor response, the survey was resent for the second time with the survey duration of September to December 2015. In the second survey, the FMTCC checked duplication of email addresses and organizations on their contact list and created an integrated contact list of organizations/individual groups and distributed questionnaires to all registered FMTs through email.
The questionnaire used for the online survey had questions on FMT registration, assignment, deployment, coordination, continuous communication and exit.

2.8 Quality of the data
Prior to the field visit, researchers were thoroughly oriented about the study protocol and data collection tools. Field researchers were instructed about the overall purpose of the study, their activities in the field and their roles and responsibilities. For first few FGD/KII/IDI supervisor accompanied field researcher and observed the whole process with necessary feedback for improvement of the process. The facilitators were trained to be comfortable to deal with conflicts/tensions between participants if any. The activities and dressing of facilitator note takers were made to comply the field setting and culture prevalent in that setting so as to avoid social distance between the facilitator and the participants of discussion. Field researchers were also trained to extract necessary data from the the record maintained in health facilities. While with regards to the quality of data related to FMTs service delivery, management (registration, deployment and exit) of FMTs, FMTs perception on challenges, opportunities and lessons learnt and reviews of records and reports including meeting minutes researchers themselves were involved.

2.9 Data management and analysis

2.9.1 Field notes
Field notes were taken to keep written account what researcher hears, sees, experiences and thinks in the course of FGDs, KIIs and IDIs. Field notes were taken to supplement the audio record to ensure real life depiction of the FGDs in the papers.
2.9.2 Transcription and analysis process of qualitative data
Data analysis for the qualitative component is from the data collection done from 14 most affected districts. FGDs, KIIIs, and IDIs were transcribed in Nepali language from the notes taken and audio recorded during the discussion of interview. Nepali transcriptions were then translated to English and were thoroughly checked for consistency.
In the first round, researchers screened all the transcripts to create possible codes for the transcript. In the second phase, researchers thoroughly read the transcripts line by line to capture the real essence of data through open codes. This was done using highlighting and comment functions in Microsoft Word. Open codes thus assigned to transcript were taken to MS Excel. Intensive analysis of codes in terms of their meaning was done by the team of researchers and any patterns, relationship or similarities among those codes were assessed.
Similar codes were grouped together to reduce and narrow down the data. Broader codes thus developed through grouping together of similar codes were called as axial codes. Axial codes were discussed among the team of researchers, connections and differences between the codes were analyzed and regrouped to develop even broader categories called themes.
Themes were finalized with subsequent discussion with the research team to ensure that they are in accordance with the objectives of study. Quotations that were clear and express ideas that were relevant and interesting in terms of purpose of the study were selected to cite as verbatim while presenting the findings.
In addition to the primary data on qualitative component, the meeting minutes of the HEOC and FMTCC were reviewed by the researchers so as to extract the excerpts of the meeting.

2.9.3 Analysis of quantitative component (patient data from FMTs, records of FMT registration, deployment and exit)
Descriptive analysis was done using the data from the records of FMTCC that was available in the Excel version. The analysis focused on number of FMTs, capacities of the FMTs, duration of stay when it was about the FMTs and their engagement in the response. We present the number of OPD cases, total trauma cases and referred cases when it came to the patient data from the services delivered by FMTs. The analysis of the service data of the FMTs by district where applicable was done for 12 most affected districts (excluding Okhaldhunga and Sindhuli).

2.10 Limitation of the study
Sex disaggregated data could not be presented in the findings as the record system was not according to our developed tool.
Chapter III: Findings

This chapter of the report presents the results from different components of the study as described in the methods section including the record review of the FMTCC as well as other relevant government reports and meanwhile triangulating the findings from the qualitative study carried out in the 14 affected districts.

Health Emergency Operation Centre (HEOC) that was the major body established inside the premises of Ministry of Health to provide operational linkage between health sector preparedness and response following the earthquake. HEOC meeting held on 14/01/2072 formed committees and several teams to coordinate various aspects of health sector response, and also discussed on role of HEOC. (Meeting Minute, HEOC, 14/01/2072). HEOC was activated within 45 minutes of the first shock of the earthquake and convened a meeting to initiate response as reported by the team leader of the team (later FMTCC) formed to coordinate the FMTs.

There were 27 responses in total from the internet survey of FMTs out of 137 surveys sent out and the findings from this survey also have been included along with the other results where relevant.

3.1 Status of casualties after earthquake

3.1.1 Casualties following earthquake

The earthquake claimed a total of 8,962 lives and left 22,302 injured across the country, while there were 8,864 deaths and 21,156 injured in the most affected 14 districts of Nepal (2). Majority of the death were reported in Sindhupalchowk (3,570) followed by Kathmandu (1,233), Nuwakot (1,112) and Rasuwa (681).

Table 1 Districtwise breakdown of death

<table>
<thead>
<tr>
<th>Districts</th>
<th>Reported No. of deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bhaktapur</td>
<td>333</td>
</tr>
<tr>
<td>Dhading</td>
<td>680</td>
</tr>
<tr>
<td>Dolakha</td>
<td>180</td>
</tr>
<tr>
<td>Gorkha</td>
<td>450</td>
</tr>
<tr>
<td>Kathmandu</td>
<td>1,233</td>
</tr>
<tr>
<td>Kavreopalanchowk</td>
<td>330</td>
</tr>
<tr>
<td>Lalitpur</td>
<td>185</td>
</tr>
<tr>
<td>Makawanpur</td>
<td>33</td>
</tr>
<tr>
<td>Nuwakot</td>
<td>1,112</td>
</tr>
<tr>
<td>Ramechhap</td>
<td>42</td>
</tr>
<tr>
<td>Rasuwa</td>
<td>681</td>
</tr>
<tr>
<td>Sindhupalchowk</td>
<td>3,570</td>
</tr>
<tr>
<td>Okhal dahunga</td>
<td>20</td>
</tr>
<tr>
<td>Sindhuli</td>
<td>15</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>8864</strong></td>
</tr>
</tbody>
</table>
In qualitative component of the study, a large number of casualties were reported by health workers immediately after earthquake. They shared that Health Facilities (HFs) were overloaded with injured patients. Psychosocial problem like getting scared, forgetting things were also reported, although they were less common. Severe cases were referred to capital city.

“On average, 15 patients visited hospital emergency before earthquake but after earthquake, the number escalated. We could not count and record it properly.” - KII, medical officer, Gorkha District hospital

3.1.2 Threat of epidemic following earthquake
One of the major challenges that health system comes through in post earthquake is the outbreak of epidemics. Since the earthquake occurred in pre-monsoon season and majority of the people were living under tents, they feared of contacting cholera and getting bitten by snakes and mosquitoes. However, no any epidemic after earthquake was reported by health workers. Waste management was done through participation of community people and local organizations immediately after earthquake. Water supply system was functioning in most of district and disinfection attempts were made to control the spread of water born diseases through local health workers, community and other organizations working in the district.

“We feared that there might be snake bite, mosquito bite and also spread of cholera due to problem in water supply and waste management”.
FGD, earthquake survivor, Nuwakot

“No much spread of disease was here. Water supply was adequate and quality was similar to that of pre disaster phase. We collected the wastes around the health post too and managed it inorder to prevent any outbreak of diseases.”
FGD, earthquake survivor, Dolakha

In Nuwakot, earthquake was followed by landslide which made it hard to provide relief to remote places of that district. Landslide following earthquake in Tatopani, Sindhupalchowk resulted in damage of some houses.

“Even after the earthquake, my house had not sustained much damage. However, the wall of my house collapsed due to landslide following earthquake”.
FGD, earthquake survivor, Nuwakot

3.2 Response in post earthquake scenario
Nepalese Army, Nepal Police, Armed Police Force and other government agencies, local volunteers and FMTs had worked in close coordination with district health office or district public health office in most of the districts. Most of the health workers reported a good coordination among government bodies. Transportation service had not been disrupted in most of the districts and minor disruption was sorted immediately after earthquake. Some districts reported that they had to refer cases because of lack of electricity while in other districts it was uninterrupted.
3.2.1 Management of victims

Most of the Health Workers reported application of triage, immediate management of severe cases, and referral of complicated cases that could not be handled by the health facility. In most cases, patients were treated on the ground in absence of adequate space or collapse of buildings of health facilities. In most of the districts, health workers were mobilized immediately after the earthquake with pooling of staffs from less affected areas or assigning double duty wherever additional health personnel are required. However, some health workers reported that they had faced the problem of insufficiency of staffs as some of them were injured during earthquake, had suffered some losses in their home or were on leave at the time of earthquake.

“There was lack of bed for patients in the hospital and patients slept on the open ground. Deliveries were also conducted on the ground. The situation was extreme.”  
-FGD, health worker, Gorkha

“Many volunteers had come. Local volunteers came immediately after earthquake”  
-FGD, emergency staff, Dhulikhel Hospital

“We didn’t have enough manpower.” –FGD, nursing staff, Bir Hospital

3.2.2 Deployment process and response of FMTs

Teams from the neighbouring countries arrived first within hours the same day to a few days later such as teams from India, Pakistan, Bangladesh, Srilanka and Bhutan. By 1st May 2015, 91 medical teams from all over the world had arrived in Nepal. The first meeting formally documented at the MoH following the earthquake was on 27th April 2015. And one of the decisions made in this meeting was to form different teams with task division, of which one team was formed for international relations. This team formed for international relations later functioned as FMTCC. Initially, there was no systematic process for registering the FMTs in the FMTCC, which was later established within the first week. Global FMT coordinator from WHO also arrived within that week and MoH and WHO jointly worked on the registration process and developed a registration system for FMTs. The first meeting of FMTCC was held in 29th of April. FMTs were deployed on first come first basis to the most affected districts informing the district (public) health offices. This was later systematized by ensuring that the teams who arrived at the MoH being deployed only after completing the registration and issuance of letters to the FMTs and also sending a copy of the letters to the DPHO.

3.2.2.1 FMT registration

The international relations team (later developed into FMTCC) at the MoH, with only a couple of people initially, deployed some of the teams without any systematic registration process. While, after the arrival of global FMT coordinator from WHO along with their team, FMTCC also worked on a registration process and developed a system for registering the FMTs with the reference from the online registration form for FMTs developed by WHO. FMTCC used the official registration form from 29th April 2015 to register the FMTs.
Any medical practitioner has to obtain temporary license from the concerned medical, nursing or health professional council. However, considering the overwhelming situation of the aftermath, it was decided that the FMT members will be allowed to work during the emergency if they submit their medical license. Hence, along with the registration form, the FMTs had to submit their medical license, a copy of their passport and a cover letter to the MoH. The FMTCC did not register individual volunteers as FMTs. In case of new members joining the already registered team or replacing the previous members, they had to submit the personal documents: passport and medical licence but not the new registration form.

The FMTCC record shows a report of 150 medical teams from 127 organizations who came to Nepal to work or with some interest to work in the health sector response. As there were more than one team from some organizations but working in different areas, we used teams rather than organizations in the analysis of this study. Out of the 150 teams, one of them came to serve in some other areas but not in the health sector response to earthquake, one was put on hold and four of them were not in contact after they gave initial information in the beginning days but did not complete the registration process. Out of the remaining 144 teams, there were 137 teams who actually provided medical services.

### Table 2: Registration status of Foreign Medical Teams

<table>
<thead>
<tr>
<th>Registration</th>
<th>FMTs</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registered with MoH only</td>
<td>91</td>
<td>66%</td>
</tr>
<tr>
<td>Coordinated and operated through Nepal Army only</td>
<td>14</td>
<td>10%</td>
</tr>
<tr>
<td>Registered with MoH and WHO</td>
<td>13</td>
<td>9%</td>
</tr>
<tr>
<td>Registered with WHO only</td>
<td>4</td>
<td>3%</td>
</tr>
<tr>
<td>Coordinated and operated through Nepal Army and registered with MoH</td>
<td>2</td>
<td>1%</td>
</tr>
<tr>
<td>Unregistered*</td>
<td>13</td>
<td>9%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>137</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

*Official registration process not fully completed*

Sixty six percent of the FMT registered with in Ministry of Health (MoH). Ten percent of the FMTs were registered through Nepal Army and deployed, coordinated and operated through the Multinational Military Coordination Centre (MNMCC) of the Nepalese Army. Nine percent of FMTs registered with MoH and the WHO.
Figure 1: FMT types in country by date of arrival

Figure 1 shows that majority of all different types of FMTs arrived within one month in the country.

Table 3: Type of Foreign Medical Teams (Government, Military, NGO)

<table>
<thead>
<tr>
<th>Type of FMTs</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-government, non-military</td>
<td>96</td>
<td>70%</td>
</tr>
<tr>
<td>Government (civilian)</td>
<td>25</td>
<td>18%</td>
</tr>
<tr>
<td>Military</td>
<td>16</td>
<td>12%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>137</td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

From the data received at FMTCC, one hundred and thirty-seven FMTs from 36 countries worked in Nepal to provide medical relief. Four teams were composed of Nepali doctors based in other countries. Of the total FMTs providing relief work, 70% of the FMTs were from non-government and non-military agencies, 18% of the FMTs were from civilian government agencies and 12% from military agencies.
Table 4: District wise breakdown of different type of Foreign Medical Teams

<table>
<thead>
<tr>
<th>Districts</th>
<th>Government teams</th>
<th>Military</th>
<th>NGOs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bhaktapur</td>
<td>1</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>Dhading</td>
<td>2</td>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td>Dolakha</td>
<td>2</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>Gorkha</td>
<td>1</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>Kathmandu</td>
<td>7</td>
<td>6</td>
<td>14</td>
</tr>
<tr>
<td>Kavrepalanchowk</td>
<td>6</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>Lalitpur</td>
<td>1</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Makawanpur</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Nuwakot</td>
<td>1</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Ramechhap</td>
<td>1</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Rasuwa</td>
<td>1</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Sindhupalchowk</td>
<td>1</td>
<td>1</td>
<td>22</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>25</strong></td>
<td><strong>16</strong></td>
<td><strong>96</strong></td>
</tr>
</tbody>
</table>

Most of FMTs were from non-governmental sector (96) followed by governmental (25) and military teams (16). Most of the NGO based FMTs were concentrated in Sindhupalchowk whereas FMTs representing governmental sector of different countries were higher in Kathmandu district.

Table 5: Human resource capacity of Foreign Medical Teams

<table>
<thead>
<tr>
<th>Human resource</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doctor</td>
<td>1233</td>
<td>42.41</td>
</tr>
<tr>
<td>Nurse</td>
<td>537</td>
<td>18.47</td>
</tr>
<tr>
<td>Allied Health Personal</td>
<td>666</td>
<td>22.91</td>
</tr>
<tr>
<td>Logistics/operations personnel</td>
<td>262</td>
<td>9.01</td>
</tr>
<tr>
<td>Administration personnel</td>
<td>209</td>
<td>7.18</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2907</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Among the human resources in the FMTs, most of them were Doctor (42.41%) followed by allied health personal (22.91%), nurses (18.47%), logistic (9.01%) and administrative personnel (7.18%).

3.2.2.2 FMT deployment

FMTs were deployed based on the needs of the districts. Information on district needs was obtained largely from the district (public) health offices, sometimes directly through telephonic conversations or from the HEOC situation reports.

Once the registration process was completed with all the documents from the FMTs, a letter of deployment was issued and given to the team with a copy each to DPHO and Ministry of Home Affairs. Along with the letter, a photo id of each of the members of the FMT was also issued with authorized signature from the MoH. They were also given a trauma management guideline.
which was just developed that time. The FMTs were supposed to maintain the records of the patients they see and report to DPHOs and MoH (the FMTCC) using a reporting form made available to them. However, the military teams were deployed through a different process by the Nepalese Army through their multinational Military medical team coordination mechanism. Even after the registration process was established, there were some issues in the deployment of the FMTs, many times FMTs being deployed without completely matching the need. Some of the FMTs came with a proposal to go to a particular district which they chose beforehand. There was inadequate communication between the information unit at the HEOC and the FMTCC in the issues of FMT deployment which resulted in improper deployment. Some of the FMTs were deployed on first-come-first basis once their registration process was complete at the FMT Coordination Desk at HEOC, instead of doing it in a more systematic way by identifying the right needs of the affected areas and matching the needs to the right teams.

Most of the teams were deployed the next day they arrived, with some exceptions. With regards to the deployment time it was found from the internet survey of FMTs that the time gap between the FMTs’ arrival to the country and FMTs being given their assignment had to be shortened. In FGDs and KIIs, participants in most of district reported that the FMT’s reached after 4-5 days of the earthquake. Nearly all of the hospitals and health facilities reported that they did not get prior information on arrival of FMTs, while some of the hospitals like Bir hospital sought the help of FMTs on their own. FMTs provided support in the form of food, medicines, free medical treatment, surgical supplies and surgical expertise.

“We were not informed about the arrival of the FMTs and their responsibilities before their arrival.” *FGD, ART counselor, Bhaktapur Hospital, Bhaktapur*

![Figure 2: Number of FMT deployed VS. reported deaths and injuries](chart.png)
Figure above shows the number of deaths and injuries with corresponding number of FMTs deployed in the 12 severely affected districts. Most of the FMTs were deployed in Kathmandu (18%) that had highest number of injuries (7950) followed by Sindhupalchowk (18%) that had highest number of deaths (3570) districts.

In qualitative interview too, participants shared that FMTs were officially deployed to particular sites or districts based on district needs and their capacity. Information on district need was received from DHOs over the phone when possible. The daily situation report released by HEOC also included human resource needs in different districts and was used as one of the sources of information to identify the needs of medical teams.

**Setting up of field hospitals**

<table>
<thead>
<tr>
<th>Full field hospital</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>28</td>
<td>20%</td>
</tr>
<tr>
<td>No</td>
<td>109</td>
<td>80%</td>
</tr>
<tr>
<td>Total</td>
<td>137</td>
<td>100%</td>
</tr>
</tbody>
</table>

Twenty percentage of the FMTs had the capacity of full field hospitals. Some of them were set up in the Kathmandu valley and some in the hardest hit districts among the most affected ones. Nuwakot, Rasuwa, Sindhupalchowk, Gorkha and Ramechhap were some of the districts which had full field hospitals by the FMTs.

**Logistics and accommodation for FMT**

Majority of the FMTs were well equipped with necessary logistics needed for service delivery and were prepared to set up temporary tents for accommodation. Some had set up temporary operation theater (OT) and field hospital

“They (Bhutanese medical team) brought tents for their own accommodation and to accommodate patients. We provided them space to set up tents.”

*FGD, health worker, District Hospital, Nuwakot*

“Norwegian Red Cross and District Hospital built a temporary field hospital in Tudikhel.”

*FGD, medical officer, District Hospital, Sindhupalchowk*

Still there were some teams who came unprepared, not equiped adequately to start service delivery

“They had not brought any logistics. Recently, I had gone to ask for Endo-tracheal tube (ET) as it was essential, they gave me the tube that had already expired on the year 2013.”

*FGD, doctor, Bir Hospital, Kathmandu*

**3.2.2.3 Service delivery by FMTs**

The FMTs provided a wide range of services including emergency care, WASH and rehabilitation services. FMTs also changed the type of service delivery to meet the health care needs of the local population when required.
Table 7: Number of Foreign Medical Teams by type of service delivery

<table>
<thead>
<tr>
<th>FMT Type</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type 1 Fixed</td>
<td>61</td>
<td>45%</td>
</tr>
<tr>
<td>Type 1-mobile</td>
<td>28</td>
<td>20%</td>
</tr>
<tr>
<td>Type 2</td>
<td>21</td>
<td>15%</td>
</tr>
<tr>
<td>Type 3</td>
<td>1</td>
<td>1%</td>
</tr>
<tr>
<td>Sp cell</td>
<td>3</td>
<td>2%</td>
</tr>
<tr>
<td>Special cell surgery</td>
<td>11</td>
<td>8%</td>
</tr>
<tr>
<td>Special cell maternal and child health</td>
<td>1</td>
<td>1%</td>
</tr>
<tr>
<td>Special cell rehabilitation</td>
<td>6</td>
<td>4%</td>
</tr>
<tr>
<td>Special cell microsurgery</td>
<td>3</td>
<td>2%</td>
</tr>
<tr>
<td>Special cell epidemiology</td>
<td>1</td>
<td>1%</td>
</tr>
<tr>
<td>Special cell WASH</td>
<td>1</td>
<td>1%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>137</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Note: The different types of FMTs were defined as follows:

**Type 1 Fixed**: Outpatient Emergency Care, outpatient initial emergency care of injuries and other significant health care needs

**Type-1 Mobile**: Mobile clinics providing services to that of type 1 fixed clinic but on mobile basis in different locations.

**Type 2**: Inpatient Surgical Emergency care, Inpatient acute care, general and obstetric surgery for trauma and other major conditions

**Type 3**: Inpatient Referral Care Complex, inpatient referral surgical care including intensive care capacity

Additionally, there were specialized care cells within type 2, 3 or a local hospital or other places such as surgery, epidemiology, maternal and child health, rehabilitation and microsurgery. Nearly half of the FMTs were type 1 FMTs providing outpatient emergency care, outpatient initial emergency care of injuries and other significant health care needs in fixed locations.

Among remaining FMTs 20% were type 1 mobile, 15% were type 2 and 17% were specialized cells delivering services in specific areas like surgery, epidemiology, maternal and child health, rehabilitation and microsurgery. The Israel medical team was the only type-3 FMT which provided complex, inpatient referral surgical care, including intensive care capacity. Approximately, 20% of the FMTs worked as full-field hospitals.

Sharing best practices and meeting other teams at the FMT meetings were very valuable. Also, being partnered with a local healthcare organization and having local non-medical and medical staff on the team, including a Nepali physician was well received by the FMTs. Teams were able to provide not only essential medical care but also infectious disease surveillance. In addition FMTs found it easier to deliver services when they took support from local teams. (FMT internet survey)
3.2.2.4 Coordination with FMTs

FMTs were mainly coordinated through Foreign Medical Team Coordination Committee (FMTCC). Following the decision of the MoH on 27th April 2015, a team was formed under the leadership of high level authority to manage and coordinate the international teams (FMTs) arriving in Nepal for supporting the medical needs. This team later grew to FMTCC with the WHO global FMT coordinator, members from the Nepalese Army and a number of other members joining the team. FMTCC managed the FMTs through a systematic process of registering the teams, deploying them as per the needs of the districts, coordinating with the FMTs once deployed and systematically completing the exit process of FMTs.

FMTCC team was led by national FMT coordinator and WHO global FMT coordinator and around a dozen of professionals both national and international (Germany, Sweden, India, Japan) worked as the members of the FMTCC in order to ensure the smooth functioning of the cell.

FMT Coordination meetings were organized at the MoH led by the FMT coordinators (national and global) as well as the representative of the medical command cell of the Nepalese Army set up for the health sector response. Members of the FMTs attended the meeting which was held every day in the beginning, gradually reduced to once a week. The last meeting was organized on 1st June 2015. The meetings were used as a platform to share updates, be aware of the shifting needs and priorities in the healthcare sector, interact with other FMTs and get a tasking (deployment) of worksite. In all the meetings, it was emphasized that the FMTs need to strictly follow the MoH and DPHO requirements and guidelines and they have to be in close coordination with the DPHOs especially when they are delivering their services in site.

Information on contact person and/or hotlines for logistics issue, custom issues, blood and oxygen supply and gender based violence, rehabilitation cluster, medical evacuation for FMTs, WFP logistic cluster for helicopter were provided. Nepalese Army representative provided updates on security issues and roadblocks as well as asked to request them for any needs of airlifting. It also served as a platform for the government and WHO to thank the FMTs for their hard work and support for an effective response. The FMTCC circulated the meeting minutes the next day to all the participants of the meetings as well as other members in the list.

Functionality of the FMTCC

A database on FMT information was created in an excel sheet which served as the master sheet for holding the information related to FMTs starting from their identity to type of human resources, type of facility, arrival data, deployment date, planned exit date etc. This was frequently updated with the information of the mobility of FMTs which could be used for mapping the teams, following them up and reporting. The information was regularly circulated to the different agencies, partners, stakeholders and press to share the information about the FMTs. Additionally, a map of health facilities and different types of FMTs working in different districts was created and made available at the FMT coordination meetings and sent to DPHOs.
The gap in human resources and expertise on information management was filled through support from partner organizations, volunteers and/or consultants. This helped the FMTCC to be more efficient.

A business gmail account of FMTCC was created and used for communication which remained active till December 2015. In addition, a FMTCC hotline was available for FMTs to contact for any information or any other issues. In order to manage the documentations and informations, a google drive was created allowing the multiple members of the team at the FMTCC to work at parallely.

A project guidebook was created with information on how the FMT Coordination Team operated including website and resources, updates, minutes, registration and exit process, arranging and naming of different files and folders to email templates and responses. The guidebook was a good resource for new FMT Coordination team members and will serve as a useful resource for FMT Coordination in the future.

FMTCC received information on most of the foreign military teams from Nepalese Army rather than the teams themselves. One of the members of the FMTCC worked closely with the medical command cell of Nepalese Army in order to exchange the information. After its last meeting on 1st June, the FMTCC still continued its work until mid July though slowly shifting the tasks to the regular channels of MoH through Policy Planning and International Cooperation Division (PPICD).

**Coordination of FMTs at district Level**

Nevertheless there were some teams who went to the districts directly without any registration or coordination at the central level. Those FMTs who arrived in field directly without being referred from MoH were sent back to central level for coordination. Participants shared that FMTs that had been registered at central level and assigned specific districts worked in coordination with local health facilities at district level. In most cases, daily meeting was conducted between FMT and district level health facilities for better coordination and dealing with challenges in field.

"Let's not say that (arrival of FMTs without being referred by MoH) as a problem in co-ordination in such a situation, their help was very great. Without them the hospital would not run so quick."

*FGD, ART counselor, District Hospital, Sindhupalchowk*
Perception of FMTs regarding coordination and management

Table 8: Perception of Foreign Medical Teams regarding coordination and management
(FMT internet survey)

<table>
<thead>
<tr>
<th>Perception</th>
<th>Poor (%)</th>
<th>Average (%)</th>
<th>Good (%)</th>
<th>Excellent (%)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Usefulness of information provided in coordination meeting (before tasking)</td>
<td>1(4)</td>
<td>7(28)</td>
<td>12(48)</td>
<td>5(20)</td>
<td>25</td>
</tr>
<tr>
<td>Usefulness of information received at FMT coordination meeting (during operation)</td>
<td>2(8)</td>
<td>11(44)</td>
<td>8(32)</td>
<td>4(16)</td>
<td>25</td>
</tr>
<tr>
<td>Effectiveness of coordination in team assignment</td>
<td>5(20)</td>
<td>10(40)</td>
<td>6(24)</td>
<td>4(16)</td>
<td>25</td>
</tr>
<tr>
<td>Coherence of the assigned task</td>
<td>5(27.8)</td>
<td>4(22.2)</td>
<td>7(38.9)</td>
<td>2(11.1)</td>
<td>18</td>
</tr>
<tr>
<td>Effectiveness of coordination with DHO</td>
<td>5(20)</td>
<td>10(40)</td>
<td>8(32)</td>
<td>2(8)</td>
<td>25</td>
</tr>
<tr>
<td>Evaluation of reporting format</td>
<td>5(20)</td>
<td>10(40)</td>
<td>9(36)</td>
<td>1(4)</td>
<td>25</td>
</tr>
</tbody>
</table>

Most FMTs (48%) reported that information provided in the FMT coordination meeting before tasking was good. Regarding usefulness of information received at FMT coordination meeting (during operation), higher percentage shared that it was average (44%). Furthermore effectiveness of coordination in team assignment, effectiveness of coordination with DHO, and evaluation of reporting format were perceived as average.

“They did not see other cases except for emergency cases and while working they implemented their system (treatment protocol) only completely ignoring our system.” FGD, nurse, Charikot PHCC, Dolakha

A simple FMT registration process would be appreciated. The FMT coordination meeting can be shorter to reduce duplication, and to improve information sharing and cooperation with other coordination systems. And the coordination and collaboration with National Medical Teams should be enhanced as well. (FMT internet survey)

There is a need to develop capacity within the district level to better plan the deployment and utilization of resources and to understand how to maximize community’s uptake of the services, such as those provided by the FMTs in response to the earthquake in Nepal, through more efficient and effective communications or public information. There is also needs to be better and clearer information on the care pathways through referral centers/hospitals dependent on the patient and type of injuries sustained. Essential psychotropic drugs should be added to the essential drug list since many people encountered stress/anxiety disorder. (FMT internet survey)

3.2.2.5 Reporting by FMTs
FMTs used a reporting template developed by MoH. Initially word documents was used with hard copies of daily reports submitted by the teams. This was later changed to Excel file for
making the reporting and recording more efficient and FMTs submitted their reports via email. Although daily reporting was mandatory for the FMTs, only 54% of the FMTs submitted at least one daily report to the FMTCC. Most of the FMTs working with the district hospitals or at the district level had their reports included in the district reports by the D(P)HOs. These FMTs often did not submit their reports to the FMTCC probably because they were working jointly with the district team and the district team combined reports. And these reports from the districts were submitted to the information management unit at the HEOC.

One of the FMTs worked especially on epidemiologic investigation and outbreak prevention and worked in close coordination with Epidemiology and Disease Control Division (EDCD), National Public Health Laboratory (NPHL), NHRC, Nepal Army and other relevant stakeholders working in surveillance and outbreak prevention. However, the daily reporting template was not relevant and suitable for this team to report their activity.

### 3.2.2.6 Exit process of FMTs

FMTs were required to inform about their expected departure at least a week before the end of operations. The status of the FMTs were marked returned by the FMTCC if they ended their operations. They were also marked returned even when they were in the country but changed their activities from medical care to other services. In both the cases they had to go through an exit process by completing the following steps:

1. Fill in and submit the Exit Report Form after end of operations.
2. Submit a letter of recommendation from the District Health Office.
3. Submit a copy of inventory and receipt of any donations made.
4. Verification by the FMTCC members of daily surveillance reports submitted to the FMTCC.
5. After the requirements above are filled, Ministry of Health issues a Letter of Appreciation to FMTs

Since the acute phase was over, in its last meeting (1st June 2015) FMTCC had discussed about the need for changes in organizational setup and shifting back to regular system via the MoH. FMTs still deployed and working in the districts were requested to interact with the D(P)HOs. D(P)HOs would then communicate with the HEOC, which would link to the Policy Planning and International Cooperation Division (PPICD) for any issues including the exit process.

In KII, health personnels shared that since FMTs were supervised by the national authorities, handover problem was not the major issue. Some of FMTs left the medicines and equipments that they brought with them while coming to Nepal. In most districts, follow up of patients after their return was done by district level health authorities. In some cases, health workers and community people reported that they were told by higher level authority that FMTs would come in future for follow up of patients with major surgeries.
“In fact, they worked under our authority. We assigned them tasks, coordinated them and mobilized them. So, handover was not a problem as they were preparing to exit.

health assistant, Orthopedic Hospital, Kathmandu

“FMT had left all materials and had managed everything properly before their return. We made a temporary Chautara Hospital as we were able to run a hospital after the return of FMT.”

medical officer, District Hospital, Sindhupalchowk

3.2.3 Challenges and suggestions for improvement of post disaster response

3.2.3.1 Challenges

Research participants shared challenges in post earthquake response.

Government at central level and most of the health facilities were reported to have lack of pre-planning on disaster management. While, in some places, despite the pre-planning, it could not be implemented properly. Majority of health workers had not received any form of training relating to service delivery in post disaster scenario and had no previous experience of working in such scenario. Although, some workers had received training, it was inadequate and health workers demanded more specific trainings.

Most of earthquake survivors complained about the delayed response of government in demolition of damaged buildings, their removal and reconstruction of damaged infrastructures. Government provided relief in the form of food and money.

“What I felt is, government should show interest in managing damaged houses …..But it did not happen.” – FGD, earthquake survivor, Dolakha

Unfair or random distribution of resources like money, food and tents were another major concern raised by most of participants. Nearly all HWs shared that government did not show concern on need of HWs and their hard effort was not even appreciated by the government.

“There were bottle of juices sent here but we did not get anything. We worked very hard for 24 hours, leaving family and kids behind but the things that were brought here were not distributed to us. Our houses were also damaged and we were in need of relief.” (FGD, nurse, Charikot PHC)

The major issues with FMT were late arrival of FMTs considering the severity of cases as most of them required immediate responses, language barriers, lack of follow up, expired medicines, inadequate availability of equipments, and focus on publicity rather than the humanitarian efforts by some teams. Some of the health workers also verbalized that rather than the manpower, they needed help with supplies and equipments.

“there was a language problem. Sometimes patients felt difficulties due to differences in the treatment procedure compared to normal scenario “FGD, nurse, Orthopedic Hospital, Kathmandu

Review of Effectiveness of the Foreign Medical Team deployment in Nepal Earthquake 2015
Imposing their own working style and practice rather than considering local context and work environment by some FMTs was cited as other challenge in working with FMTs. In some cases, FMTs were accustomed to treatment with different medical equipment and procedure than practiced in Nepal. But orientation to the local context was often considered to be time consuming process. Health workers also reported that there were challenges in dealing with minor injuries due to patient load while FMTs were only looking after severe and complicated cases. In most of the cases, FMTs lacked information about the local context, national medical protocols and treatment procedures.

“In initially we had to orient them about the way of working and we felt like we were wasting time somehow. And they used different equipments than use normally. FGD, nurse, Orthopedic Hospital, Kathmandu

3.2.3.2 Suggestions for improvement of post disaster response
Most of the health workers opined that planning and preparedness of disaster management including earthquake resistant buildings for health facilities and activation of disaster team was needed. Health workers pointed out the need of maintaining stock of basic logistics and appropriate manpower for dealing with emergency situations. Participants also stressed on the need of specific training for health workers to equip them with skills needed for handling emergency situation like earthquake and opined that refresher trainings or discussion at regular interval would be better. Health workers also suggested mobilization of doctors, nurses and other health professionals within the country rather than seeking international support as the experience earned by health personal within country can also be leveraged in future when needed.

“This is a natural disaster. So, early preparedness is necessary. For example, tertiary level hospital need to have early management, have clear plan on how to handle large number of referred cases”- FGD, health worker, Bir Hospital
Chapter IV: Conclusion & Recommendation

More than one fourth of the injured patients were in Kathmandu, followed by Sindhupalchowk, and significant numbers of injured patients were observed in Rasuwa, Dhading and Gorkha. Majority of the death were reported in Sindhupalchowk followed by Kathmandu, Nuwakot and Rasuwa.

One hundred and thirty-seven FMTs from 36 countries worked in Nepal to provide medical relief. Twenty percentage of the FMTs team had field hospitals and were set up in Kathmandu valley as well the severely affected districts namely Sidhupalchowk, Rasuwa and Nuwakot.

Lack of adequate preplanning, overloading of health facilities with patients, and damage of health facilities causing inadequacy of space were major challenges faced by health workers in dealing with post-earthquake health problems. Communication system was reported to be functional in most of the districts that made it easier to communicate with higher level authority. Water and waste management system was good with no reported outbreak of any epidemics following earthquake. Health workers appreciated the contribution made by national and foreign medical teams in management of major injuries and emergency cases that could not have been managed without their contribution. The language barrier was the most common problem encountered while working with foreign medical teams.

Health workers suggested that government should plan in advance for management of disasters such as earthquake with earthquake resistant building, appropriate training of health workers and stock of logistics.

FMTs were managed and coordinated by FMTCC. Though initially a systematic process was not in place for registering the FMTs, a mechanism was developed by the end of the first week to register, deploy, coordinate the FMTs. Later on as teams started returning an exit process was also established. Within a week (by 1st May 2015), 91 medical teams from all over the world had arrived in Nepal for medical assistance. Every 2 in 5 people were a doctor in the FMTs. Some of the FMTs went by themselves to the district without any coordination with the MoH in the central level. Daily reporting was an issue and only 54% of the FMTs submitted at least one daily report to the FMTCC. From the records of the reports received from the FMTs, they provided service to about 138000 people and around 17000 trauma cases were managed by FMTs.

A collaborative effort in coordinating the teams by WHO and MoH played a crucial role in effective management of FMTs. Information management of FMTs was an issue though, which was probably due to the absence of a fixed template for reporting developed beforehand. Use of hotline number, business email with google drive for recording and managing information was vital in the FMTCC operations. Coordination and close communication with other teams/units...
at the HEOC would be vital to better manage the information and make use of it so as to make the response process more efficient in such cases. Close coordination with the Nepalese Army and other security agencies was also found to be crucial due to its role as one of the first responders during disasters.

Timely preparation and readiness of the procedures to handle the FMTs including their registration process, medical licensing procedures, procedures of coordinating mechanisms with the district, case management and treatment guidelines to be followed by the FMTs are crucial to have a better health sector response including that of FMTs.
References


Annexure

Annex 1
सूचना मन्जुरी नामांकन

नमस्ते ! मेरो नाम .........................। म नेपाल स्वास्थ्य अनुसन्धान परिषद बाट विदेशी चिकित्सक समूहीले भूकम्पको बेलामा गरूँभएको उपचारको बारेमा छलफल गर्न आएको हु। भूकम्पको समयमा स्वास्थ्य तथा जनसञ्जाय मन्त्रालयले विभिन्न विदेशी चिकित्सकहरुलाई भूकम्प पिदितको उपचार १५ वटा भूकम्प पिदित जिल्लामा खटाएको थियो।

- यस अध्ययनको मुख्य उद्देश्य विदेशी चिकित्सक समूहहरुले तपाईलाई को कस्तो सेवा प्रदान गर्ने, केही भएको अपर्याप्तलाई भएको सेवाले मुख्यभरोसा भएको स्थानीय राजस्विय स्तरमा खटाएको कर्मचारीहरु विदेशी चिकित्सकहरु तथा अन्य सम्बन्धित व्यक्तिहरूलाई समूहगत छलफल, अन्तर्वार्ता र सर्वेक्षण गर्नेछ। यसको लागि तपाई तलका मध्ये कुनै एकांसहभागी हुन सक्नुहुनै। ठाउँहरूसँगका:

| समूहहरु | छलफल | अन्तर्वार्ता | सर्वेक्षण |

प्रक्रिया:

- यदि तपाई समूहहरुले छलफलमा भाग लिन्छन् भने:
- यस समूहमा ६-८ जनाहरू हुनेछ। प्रत्येक सहभागीले आफ्नो विचार खुलेका प्रत्युत्तरमा पर्ने हुनेछ। छलफलमा खुनैपनि विचार सहज र गलत हुनेछ। हामीले सहभागिताहरुको विचारमा मात्रुकु भन्नु चाहन्छो। यस छलफलमा तपाईबाट असहज महसुस भयो भने हामीलाई जानकारी दिने बाहिरिन सकुनु हुनेछ। यो छलफल करिब एक घण्टाको हुनेछ।
- यदि तपाई छलफलमा भाग लिन्छन् भने: तपाईले आफ्नो समूहदारमा भएका, भूकम्पको बेलामा भोभेका, देखेको कुरासागर सम्बन्धित विषय वस्तुमा छलफल गर्नेछ। यो करिब एक घण्टाको हुनेछ।
- यदि तपाईलाई भाग लिन्छन् भने: तपाईले प्रत्येक सहभागीले दृष्टि अनुरोध गर्नेछ। तर यसमा भाग लिन्छन् भने तपाईलाई स्वेच्छिक अधिकार हो। तर्फिको सहभागितालाई यस अध्ययनमा अन्तर्भूत आउनु भएको हुनेछ। भाग लिन्छ अन्तर्भूत पनि तपाई हामीलाई जानकारी गराई विनाशकता अध्ययनबाट बाहिरिन पनि सक्नु हुनेछ। यसबाट तपाईलाई कुनै किस्मको हामीहुनेछ।

हामीसागर तपाईलाई सहभागितालाई अन्तर्भूत गर्ने ४ र तपाईलाई नाम कत्रे पनि उल्लेख गर्ने
Review of Effectiveness of the Foreign Medical Team deployment in Nepal Earthquake 2015
Annex 2
The FMT’s response to the Earthquake in Nepal of 2015: In-Depth Interview with Earthquake victims who received treatment through FMTs

1. Parichay
- कृपया तपाईको बारेमा कोही बताइदिनुस न!

2. भूकम्पको बारेमा तपाईको अनुभव भनि दिनुस न?
- तपाईलाई शारीरिक रुपमा लागेका चौटहरु?
- घरमा भएको क्षति?
- उदार र राहतको कार्य कस्तो रहेको छ?

3. विदेशी चिकित्सा टोलीले गरेको उपचारको अनुभव?
- तपाईलाई उपचार गर्दै तपाईलाई प्रकाशित कर्ता ठिकाना?
- विदेशी स्वास्थ्यकर्मीले तपाईको उपचारको क्रममा गरेको व्यवहारहरू?
- तपाईलाई उपयुक्त उपचार दिन कोही डिलाई भएको भने?
- उनीहरूलाई उपचारको क्रममा भएका कठिनाईहरू?

4. तपाईको विदेशी चिकित्सा टोलीसँगको अनुभव कस्तो रहेको?
- समयमा उपचार दिएका भने व्याप्त अन्यायी दिएका भने दिएका भने?
- उपचारको सफलता पुरा गर्न सफल भए?

5. तपाई पहिलेको प्रारम्भिक उपचार पट्टि पनि भने उपचार को लागि आइ रहनु भएको छ?
- छने पछिलो उपचारहरू कहाँबाट पाइएको भएको छ?
- अनि अघिले को उपचारको धारणा?

6. तपाईले विदेशी टोलीबाट पाइएको भएको स्वास्थ्य सेवाहरूको रामो पत्तहरू भने-भने थाँ?
- को उनीहरूको उपचारको लागि समय मै उपस्थित थिए?
- को त्यहाँ विद्यमानो व्यवस्थापन पार्टियो ठिकाना?
- को तपाईलाई हेलिकाप्टर गर्न पर्याप्त स्वास्थ्य अवस्था?

7. तपाईलाई आवश्यक परेको समयमा स्वास्थ्यकर्मीहरू सेवा दिन उपस्थित हुने?

अरु कुनै विद्वानीसँगका कोही भन्ने मिल्ने खालका घटनाहरु र क्षणहरु?
- कोही अन्यायवृत्त घटनाहरु छन्?
- कोही सम्भन्ता लाईक क्षणहरु छन्?

Review of Effectiveness of the Foreign Medical Team deployment in Nepal Earthquake 2015
Annex 3

अन्तरराष्ट्रीय निर्देशनका (KII: Central Level Stakeholders)

1) परिचय

- कृपया आपनो कामको भूमिका वर्णन गरिदिनुहोस्।
- २०१५ नेपालमा आएको भूकम्प पश्चात विदेशी चिकित्सक टोलीहरूलाई परिचित गरियो भनेको हुनुहुनै कस्तो रह्यो?

2) भूकम्प पश्चात विदेशी चिकित्सक टोलीहरूलाई परिचालन गरीयो भनेको हुनुहुनै कस्तो रह्यो?

- लागि को प्राकृतिक बालको वर्णन गरिदिनुहोस् न।
- नेपाल सरकारले विदेशी समुदायको जुन समयमा सहयोग मागेको थियो त्यसबारे यहाँको धारणा कस्तो छ?
- विदेशी चिकित्सक टोलीहरूको परिचालन प्रक्रियाको कलेको कुशल र लचिलो थियो?

3) नेपालमा गएको भूकम्पमा विदेशी चिकित्सक टोलीहरूलाई कस्तो परिचालन गरीयो?

- कुन क्षेत्रमा कल सहयोग चाहिएको छ भने बारे कस्तो पहिचान गर्नेको?
- विदेशी टोलीहरू कलेको कुशल थिये र आवश्यक श्रृंखला लिएर आएका थिये कि थिएन?
- को उनीहरूले आफुलाई चाहिए सामग्रीहरू लिएर आएका थिए?
- थिए भने लिएर आउने कलेको कल समयमा नल्याउने कल जति थिए?
- व्यायामको उजवकम विदेशी कलेको प्रभावकारी थियो?

4) विदेशी चिकित्सक टोलीहरूको सहयोग कलेको समन्वित थियो?

- नेपाल सरकारको कस्तो भूमिका रह्यो?
- नेपाली सेना र प्रहरीको कस्तो भूमिका रह्यो?
- सयुक्त राष्ट्र संघको कस्तो भूमिका रह्यो?
- विपत्ति आउनु पूर्व गरिएको योजनाहरूले कलेको नमित पूज्यता?
- भूकम्प पश्चात महत्त्व जुटेका टोलीहरूसंगको संचार कस्तो रह्यो?
- आपत्तिकालमा स्वास्थ्य व्यवस्था समिति, राष्ट्र संघ, स्वास्थ्य कल्पना र विदेशी चिकित्सक टोली समन्वय सेल्हरू संगमको सम्बन्ध कस्तो रह्यो?

5) भूकम्पको उद्देश्य कार्यको त्यागको कलेको स्मृति थियो?

- को नेपाल सरकारले भूकम्प पूर्व गरेको त्यागको उपयोगी थियो?
- राष्ट्रसंघको त्यागको कलेको थियो?
- विदेशी चिकित्सक टोलीहरूको त्याग कस्तो थियो?

6) विदेशी चिकित्सक टोलीहरूको सम्बन्ध र कमजोरी पश्चात को-को थिए?

- उनीहरूले गरेको को काम एकदम राख्नु प्रयास गर्ने किने र कुन काम नराइण लाग्नु प्रयास गर्दछ?
- विदेशी चिकित्सक टोलीहरूसंग काम गर्दा कस्तो चुनौतीहरू आएर तिनीहरूलाई कस्तो सम्बोधन गर्नु प्रयास गर्दछ?

7) २०१५ नेपालमा गएको भूकम्पले वित्तको पाठ्य?

- २०१५ नेपालमा गएको भूकम्प यस्तो जोखिमपूर्ण क्षेत्रमा कार्यरत नेपालका सरकारी संस्थाहरूले को पाठ लिङ्क सक्नु?
- विदेशी चिकित्सक टोलीहरूले नराईण गर्न सहयोगमा परिवर्तन गर्न आवश्यक छ?
- अस्पताल र जिल्ला स्वास्थ्य कार्यलयले सिकु पर्ने?
- अन्य तपाईको सुकृत?
Annex 4
अन्तरराष्ट्रीय निरीक्षण
(KII: CDO, LDO, DPHO)

1) परिचय
- कृपया आपने कामको वर्णन गरिरिदिनुहोला।
2) तपाईले ल्याउं बेला कर्तो अवस्था सामान्य गाउँ व्यस्त या?
- स्वास्थ्य संस्थामा भएको क्षमता?
- भूक्रम आएको समयमा कर्मचारीहरूको उपस्थिती?
- त्यसकेता आधारभूत आवश्यकताहरूको आपूर्तिमा भएको कठिनाइहरू?
3) भूक्रम आएको तपाईहरूको प्रारंभिक प्रतिक्रिया के थियो?
- यदि स्वास्थ्य संस्थालाई क्षति पुगाएको भए तपाईहरूले कसरी व्यवस्थापन गर्नेछौ?
- सुरक्षा दिनाहरूमा के-कर्ता घटनाहरू भए?
- भूक्रम पिघलाउलाई व्यवस्थापन गर्न क्रममा कर्ता बाधा अबुधनहरू आए?
- तपाईले स्थानिय सत्ता वाट कर्तो सहयोग पाउनेछौ?
4) माइलती मनोरंजनसंग्रहको समनवाय, संचार र सहकार्य?
- समनवाय र संचार माध्यमको व्यवस्था कसरी गरियो र त्यस क्रममा कसरा-कसरा बाधा व्यवहारलाई आए?
- जिल्ला विपणी राहत समितिको भूमिका कसरो राख्यो? समितिको भूमिका कसरो राख्यो?
- माइलतो निकायहरू सहयोग कर्तको क्षिटो प्राप्त भयो?
- के माइलतो निकायले तपाईले भाग गरेको अनुसारको सहयोग उपलब्ध गराउँनेछौ?
- भूक्रमपछिको संचार व्यवस्थालाई तपाईले कसरी मुद्दाकों गर्नेछौ?
- के बिदेशी चिकित्सा टोली र साधारण चिकित्सा टोलीहरूको सहयोग चाहिएको थियो?
- आवश्यकता, कमि र आपूर्ति?
5) बिदेशी चिकित्सा टोलीहरूलाई परिचालन कसरी गरियो?
- बिदेशी चिकित्सा टोलीहरूले परिचालन कसरी गरियो?
- बिदेशी चिकित्सा टोलीहरूसंग बैठक बस्नेछ भएको थियो?
- बिदेशी चिकित्सा टोलीहरूलाई सुचारू गर्न यहाँ भूमिका को थियो?
6) बिदेशी चिकित्सा टोलीहरूले गर्नेछौ?
- बिदेशी चिकित्सा टोलीहरूले कामको वर्णन गरिरिदिनु न?
- बिदेशी चिकित्सा टोलीहरूले क्रममा आफ्नो धिक्कारा यहाँहरूलाई र कसरो पाउसौ भयो?
- के उनीहरू यहाँको अवस्था अनुसारको व्यस्त र साधन लिएर आएको थियो?
- यहाँको कार्यालय र बिदेशी चिकित्सा टोलीहरूबीचको समन्वय कर्तो थियो?
- बिदेशी चिकित्सा टोलीहरूले गरेको काम कसरो पाउसौ?
- बिदेशी चिकित्सा टोलीहरूले गर्न र परिचालन गर्न काम चुनौतीहरू आए, र ती चुनौतीहरूलाई कसरी हटाउसौ?
7) बिदेशी चिकित्सा टोलीहरू गर्नेछौ?
- बिदेशी टोलीहरू फर्किने निर्णय कसरी गरियो? कसरले गयो?
- उनीहरू फकिरा खेमको अवस्था कसरी डिशी?
- उनीहरू फकिरा स्वास्थ्य क्षेत्रको क्षमता कसरी थियो?
- तपाईले विद्वान जिल्ला स्तरमा बिदेशी चिकित्सा टोलीहरूको हस्तांतरण र छोडेका प्रक्रिया
कतिको उपयुक्त दियो? यदि किन किन दियो, तथा कर्मिको दियो?

५) तपाईहरूद्वारा विचाररूप व्यति बेलाको अखबारभाषा विदेशी चिकित्सा दलीलको सहयोग कतिको उपयुक्त रह्यो?

• उनीहरुले गरेका कस्ता कामहरू राष्ट्र लाग्छ। के कारण ती कामहरू राष्ट्र लाग्छ त?
• उनीहरूसंग काम गर्दा कस्ता चुनौतीहरू आइपारे र त्यसलाई कस्ती समन्वित गर्नेछन्?
• विदेशी चिकित्सा दलील मार्फत सहयोग पुर्याउन माथिल्दो निमाइलो कस्तो भूमिका निर्धारित गर्नेछन्?

६) २०७२ मा नेपालमा गएको भूकम्पले स्थानाको पाठवहरू के कह सुनिन्छ?

• २०७२ मा नेपालमा गएको भूकम्पले यस्तै जीवितमूल्य क्षेत्रमा कार्यरत नेपालका सरकारी संस्थाहरूले पाठ सिक्न सक्छन्?
• विदेशी चिकित्सा दलीलहरूले उनीहरुले गरेको सहयोगमा कस्तो परिवर्तन गर्ने आवश्यक छ?
• हालको अनुभवबाट अस्पताल र जिल्ला स्वास्थ्य कार्यालयले कस्तो पाठ सिक्न सक्छन?
• जिल्ला सरोकारबाबुहरूले पाठ सिक्न सक्छन?
• यहाँको तर्फबाट अरु कुनै सुझाव छ भने कृपया बताई दिनु होला।
Annex 5
FGD Earthquake Survivors

1) परिचय
- आफ्नो परिचय दिनुहोस्

2) गएको भौकम्पमा यहाँको अनुभव कस्तो रह्यो?
- भौतिक पूर्वाधारहरूमा कस्तो क्षति पुग्यो?
- कस्तो घाइले भए?
- खोजो कार्य र उदार कार्यक्रम प्रयासहरू?

3) भौकम्प गए लगायत कस्तो प्रभावको स्वाभाविक यहाँहरूलाई उपवाव थियो? तपाईले महत्त्वको लागि कस्तो भन्नु भयो? के तपाईहरूलाई कस्तलाई भन्नु पर्नु पर्छ भनेर थाहा थियो? उताबाट कस्तो प्रतिक्रिया आयो?
- स्थायित्व स्वास्थ्यक्रमी ब्राह्मण प्राप्त सहयोग?
- विदेशी चिकित्सा टोलीहरूबाट प्राप्त सहयोग?
- अन्य सच संस्थाहरूबाट प्राप्त सहयोग?
- अन्य उनीहरूको प्रतिक्रिया

4) विदेशी चिकित्सा टोलीहरूबाट यहाँहरूको अनुभव कस्तो रह्यो?
- प्रतिक्रियाको समय र उपयुक्तता कस्तो रह्यो?
- विदेशी चिकित्सा टोलीहरूको व्यवहार कस्तो पाउनु मिल्छ?
- विदेशी चिकित्सा टोलीहरूसँग बुझाउनी गर्नुमा कतिको कठिनाई भयो?
- विदेशी चिकित्सा टोलीहरूले प्रदान गर्नेको स्वास्थ्य सेवा कतिको प्रभावकारी थियो?
- विदेशी चिकित्सा टोलीहरूले प्रदान गर्नेको सेवा तपाईहरूले आवश्यकता अनुसार भए/नभएको बारे वर्णन हुनुहुन्छ?

5) उपचार ध्वस्त हुने क्रममा के कस्ता चुनौतीहरूको सामना गर्न पयो?
- यातायात र संचार सम्बन्धमा?
- स्थायित्व स्वास्थ्य संस्थाहरूको अवस्था र क्षति?
- भूभाग र पहिरो?
- नयाँ र भूकाली?
- विदेशी चिकित्सा टोलीहरूसँगका समालहरू?

6) सुरुको उपचार पछि अनु कुनै उपचार पाउनुमा भएको हुन्छ?
- पुनर्ग्रहण?
- पछि को उपचार कसले प्रदान गर्न?
- विदेशी चिकित्सा टोलीहरू गएपछि अवस्था?

7) तपाईहरूलाई भौकम्प पछि कुनै रोग फैलिएको भांता पाउनु भएको हुन्छ? चूनै भने?
- तपाईहरूले चुनै रोग फैलि भएको भांता पाउनु भएको हुन्छ? चूनै भने?
- ती रोगहरू नियन्त्रण गर्न चुनै सहयोग, सुञाल र श्रेष्ठ हरू प्राप्त गर्न भएको हुन्छ?
- तपाईहरूले आफ्नो स्थायित्व खात्रीमा लागि जनाउन र चराहरू देखि भयो? देखि भयो भने व्यवस्थापन गर्न कुनै कदम चालु भएको हुन्छ?
- र ती समस्याहरू समाधान गर्न तपाईहरूले जिल्लालाई र समुदायको गैरसरकारी संस्थाहरूले के-कस्तो
महत गरेका छन?

8) तपाईहरूले प्राप्त गरेको महत्त्वको सकारात्मक पक्षहरू के थिए?
   - स्वास्थ्य सेवा र उपचार
   - अन्य सहयोगहरू (खाना, कपडा, बासस्थान ,आदि)

9) कृपया अभ्यास गरी गर्न सकिन्छ्?
   - स्वास्थ्य सेवा र उपचार
   - अन्य सहयोग (खाना, कपडा, बासस्थान ,आदि)

10) २०७२ मा नेपालमा गएको भुक्तानवाट के पाट लिन सकिन्छ?
    - जिल्ला स्तरमा के पाट लिन सकिन्छ?
    - राष्ट्रिय स्तरमा के पाट लिन सकिन्छ?
    - स्वास्थ्यकर्मीहरूले के पाट लिन सकिन्छ?
    - तपाईहरूले के पाट लिनभयो?
Annex 6

Annterheada niyegeka (FGD Health Care Workers)

1) prarice

- कुप्या आफ्नो कामको भूमिका वर्णन गरिदिनुहोला।
- २०१५ नेपालमा आएको भूकम्पप्रभावको उदार कार्यमा यहाँहरूको संलग्नता कर्तो रहन्यो?
- त्यो दिन भएको घटनाहरू कुप्या वर्णन गरिदिनुहुन्छ कि?

2) तपाईंहरूले त्यस् वेला कस्तो परिस्थितिको सामना गर्नुभयो?

- स्वास्थ्य संस्थाना कस्तो क्षण भयो?
- भूकम्प आएको समयमा कर्मचारीहरूको उपस्थिति कस्तो थियो?
- आधारभूत आवश्यकताहरूको आपूर्तिमा कुनै समस्या आएको कि?

3) भूकम्प आएपछि तपाईंहरूको प्रारंभिक प्रतिकृति को थियो?

- स्वास्थ्य संस्थालाई क्षण पुरैहरू भए व्यवस्थापन प्रक्रिया कस्तो थियो?
- सूचका दिनहरूमा घटका घटनाहरू रू?
- भूकम्प पिछलहरूलाई व्यवस्थापन गर्न भएका अवश्यनहरू?
- स्थानिय स्वास्थ्य भएको सहयोग?

4) तपाईंहरूले भूकम्पपछि कस्तो प्रकारको सहयोग र महत्त्व पाउनुभयो?

- सहयोगहरूको प्रकार?
- को ति सहयोगहरू उपयुक्त, पयाप्त र सुहानादो थिए?
- तपाईंले आवश्यक सहयोगका लागि कस्ती र कसलाई सम्पर्क गर्नभयो?

5) तपाईंहरूले माध्यमिक निकायसंग कस्री सम्पर्क गर्नभयो?

- सूचना र संचारमाध्यमको व्यवस्था तथा बाधा व्यवस्थानहरू?
- माध्यमिक निकायले मागर अनुरुपको सहयोग उपलब्ध गराएको / गराएको?
- माध्यमिक निकायको सहयोग?
- भूकम्पपछि संचार व्यवस्थापन?

6) बिदेशी चिकित्सा टोलीहरूसङ्ग भएको सहकायक कस्तो थियो?

- बिदेशी चिकित्सा टोलीहरूसङ्ग पहिलो सम्पर्क कस्री भयो?
- बिदेशी चिकित्सा टोलीहरूको स्थानिय आवश्यकता प्रतिकृतिका सम्बन्धसम्यो?
- तपाईंको स्वास्थ्य संस्थासङ्ग बिदेशी चिकित्सा टोलीको सम्बन्ध, कस्तो थियो?
- बिदेशी चिकित्सा टोलीको उपस्थितिले भूकम्प व्यवस्थापनमा कस्तो प्रभाव पाउनो?
- बिदेशी चिकित्सा टोलीहरूसङ्ग काम गर्दा आएको चुनौतीहरू र सम्बन्धसम्यो?

7) बिदेशी चिकित्सा टोलीहरू गएपछि को अवस्थालाई कस्री व्यवस्थापन गर्नभयो?

- बिदेशी चिकित्सा टोलीहरूले आफूले गरेको काम कस्री हस्तान्तरण गरेको?
- को बिदेशी चिकित्सा टोलीहरू जानु अगाडी तपाईंको स्वास्थ्य संस्था को श्रमिता अभिवृद्धि घेरेको गएका थिए?
- को त्यस्तपर्ले विदेशीहरूको व्यवस्थापन अनि पुनर्स्थापना गर्न तपाईंहरूसङ्ग पयाप्त श्रेष्ठ साधनहरू थियो?

8) तपाईंहरूले विद्यमान त्यस्त वेलाको अवस्थामा बिदेशी चिकित्सा टोलीको सहयोग कस्तको उपयुक्त राख्ने?
• उनीहरूले गरेका कस्ता कामहरू राख्ने लाग्ने ? के कारणले ती कामहरू राख्ने लाग्ने ?
• उनीहरूले काम गर्दा के-कस्ता चुनौतीहरू आइपरे र त्यस्तताई कसरी सम्बन्धित गर्नेछ्ने ?
• बिदेशी चिकित्सा टोली माध्यम सहयोग पुर्याउँन माधिकल्लो निकायले खेलेको भूमिका

१) २०७२ मा नेपालमा गएको भुक्तप्लेन फिकाएको पाठ्यहुँ
• २०७२ मा नेपालमा गएको भुक्तप्लेन यस्तो जोखिमपूर्ण क्षेत्रमा कार्यरत नेपालका सरकारी संस्थाहरूले के पाठ सिक्न सक्छन ?
• बिदेशी चिकित्सा टोलिहरूले उनीहरूले गर्न सहयोगमा परिवर्तन गर्न आवश्यक छ ?
• हालको अनुभवबाट अस्पताल र जिल्ला स्वास्थ्य कार्यालय ले कस्तो पाठ सिक्न सक्छ ?
• तपाईको अन्य कैसी बुझावहरू भए ?
Annex 7
The FMT's response to the Earthquake in Nepal of 2015:
Interview Schedule

1) सर्जन
   • भूकम्पको बेलामा तपाईले खेल्नु भएको भूमिका वर्णन गरिदिनुहोस् न?
   • २०१५ मा आएको भूकम्प पछि को उदार कार्यक्रम याहाँको सलामता कस्तो रहेको?
     कृपया वर्णन गरिदिनुहुनु?
   • विदेशी चिकित्सा टोलीहरू कस्तो सलामत भए, त्यो घटनालाई अनुमान वर्णन गरिदिनुहोस् न?

2) हजुरले भूकम्प पछि सुरुमा कस्तो रिपोर्ट गरेको सामान्य गर्नुभयो?
   • स्वस्थ्य संस्थामा को कस्ता क्षतिहरू भए?
   • भूकम्प आए तर कर्मचारीहरू पर्याप्त मात्रामा उपरिधित थिए किदिए?
   • त्यहाँको आपरापति आवश्यकतामा कोही अर्थश्रृंखला किदिए?

3) भूकम्प आपरापति क्षेत्र तपाईचाँ प्रकरण र गतिक्रम गर्नु?
   • कोही क्षति भएको थियो भने त्यसको व्यवस्थापन कस्तो गर्नु भयो?
   • कृपया पहिलो २४ घण्टाको घटनालाई वर्णन गर्न गर्न सर्जनु?
   • पिडितलाई व्यवस्थापन गर्दा प्रमुख वापर अर्थव्यवस्था को के थिए?
   • तपाईले स्वास्थ्य स्तरकम्प क्षेत्रको सहयोग पाउनु भयो?

4) कृपया तपाईले भूकम्प पश्चात पाएको सहयोगको वर्णन गरिदिनु?
   • तपाईले त्यसतिदेखि प्राप्त गर्न भएको सहयोग कस्तो लाग्यो?
   • तपाईलाई आवश्यक परेको कुराहरू जुटाउनलाई सम्पर्क गर्नुभयो र कस्तो गर्नुभयो?
   • त्यसपछि को सहयोग कस्तो पाउनु भयो?

5) माफिलो निकायहरू संग कस्तो सम्पर्क गर्न भयो?
   • संचारहरूमा माफिलो कस्तो स्थायित्व भए?
   • केही काधा र अर्थव्यवस्था आए किआएन?
   • भएको माफिलो क्षेत्रको केही अनुरुप सहयोग प्राप्त गर्नु?
   • उदाहरणको उदाहरणको क्षेत्रमा सहयोग क्षेत्रको छिडियो भयो न?
   • भूकम्पको बेलामा भएको संचार प्रक्रियाको बारेमा तपाईहरूको केही भनाइ?

6) तपाईलाई पहिलो टिकिटा चिकित्सा टोली सम्पर्क कस्तो आउनु भयो?
   • विदेशी टोलीहरू याहाँको स्वस्थ्य संस्थामा कस्तो परिवर्तन भए?
   • विदेशी टोलीहरू स्वस्थ्य संस्थामा परिचालन हुनु पूर्व, उनीहरू सागरो सहकार्यमा तपाईहरूको सलामता कस्तो थियो?

7) विदेशी टोलीहरूलाई तपाइलाई पिलाङ्को काम गर्ने? कृपया सक्षेपमा व्यवस्था गरिदिनु?
   • केही विदेशी चिकित्सा टोलीहरूलाई तपाईलाई आवश्यक परेको स्वस्थ्य सहयोग जुटाउन आवश्यक सम्पूर्ण सामग्रीलिर आएको थिए?
   • आएका विदेशी चिकित्सा टोली र तपाईलाई स्वस्थ्य संस्थामा कर्मचारिको सम्बन्ध कस्तो रहेको?
   • आएका विदेशी टोलीले सलामत्तालाई स्वस्थ्य क्षेत्रमा क्षेत्रको प्रभाव पनि?
   • अनि विदेशी टोलीहरूलाई काम गर्दा केही कार्य चुनिन्टीहरू सामान्य गर्न पनि? अनि ती चुनिन्टीहरूलाई कस्तो समाधान गएनु भयो?
8) विदेशी चिकित्सा टोली फर्के परिक्रमा अवस्था लाई कसरी व्यवस्थापन गर्नु भयो?

- विदेशी टोलीहरू फर्किने निर्णय कसरी गरियो? कसले गन्यो?
- उनीहरू फर्किने समयको हस्तान्तरण प्रक्रिया कसतो थियो?
- उनीहरू गएपछि तपाईको स्थायी सङ्कर्मा अरु आवश्यक स्वस्थ्यकर्मी कसरी जुटीय?
- ल्यासपछि को व्यवस्थापनको लागि आवश्यक झौँटहरू थिए त?

9) तपाईहरूले विचारमा स्थान बेलाइ अवस्था विदेशी चिकित्सा टोलीको सहयोग कसिको उपयुक्त रह्यो?

- उनीहरूले गरेका कसरा कामहरू राखी लाग्यो? के कारणले ती कामहरू राखी लाग्यो त?
- उनीहरू संग काम गर्दा के-कसरा चुनौतीहरू आइपरे र त्यसलाई कसरी सम्बोधन गर्नभयो?
- विदेशी चिकित्सा टोली आफ्नो सहयोग पुनःयोजन माध्यमलो निकायले के कसरो भूमिका निर्बाह गर्नभयो?

10) तपाईहरूको विचारमा यो २०७२ को भूकम्प पर्याप्त स्वास्थ्य क्षेत्रबाट गरिएको कामहरूबाट भविष्यमा यस्तै विस्मयका विपरितका लागि सिहिनु पुर्नै वृक्षहरू के के रह्यो?

- २०७२मा नेपालमा गएको भूकम्पबाट यस्तै जोखिमपुर्ण क्षेत्रमा कार्यरत नेपालका सरकारी सङ्कर्माले के पाट चिनन सक्छन?
- विदेशी चिकित्सा टोलीहरूले उनीहरूले गन्न सहयोगमा के-कसरो परिवर्तन गर्न आवश्यक छ?
- हालको अनुभवबाट अस्पताल र जिल्ला स्वास्थ्य कार्यालयले कसरी पाट चिनन सक्छन?
- केही अन्य सुझाव
Annex 8
Format for recording secondary data

<table>
<thead>
<tr>
<th>Institution Name:</th>
<th>Government Health Facility</th>
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<tbody>
<tr>
<td></td>
<td>Foreign Medical Team</td>
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<tr>
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<td>Private Hospitals</td>
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<td>Others</td>
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<td>Type of Institution:</td>
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<td>Level of Institution:</td>
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<td>Location:</td>
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<td>Coverage Districts:</td>
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</tr>
<tr>
<td>Duration of Services Given:</td>
<td></td>
</tr>
<tr>
<td>EQ related Trauma Patients:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Male</td>
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<tr>
<td></td>
<td>Female</td>
</tr>
<tr>
<td></td>
<td>Total Number of Cases</td>
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<tr>
<td>Non Trauma Diseases/Conditions:</td>
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<tr>
<td></td>
<td>Male</td>
</tr>
<tr>
<td></td>
<td>Female</td>
</tr>
<tr>
<td></td>
<td>Total Number of Cases</td>
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<tr>
<td>Total:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Male</td>
</tr>
<tr>
<td></td>
<td>Female</td>
</tr>
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<td>Total Number of Cases</td>
</tr>
<tr>
<td>Obstetric Cases:</td>
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<td></td>
<td>Female</td>
</tr>
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<td></td>
<td>Total Number of Cases</td>
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<tr>
<td>Non-Obstetric Cases:</td>
<td></td>
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<tr>
<td></td>
<td>Male</td>
</tr>
<tr>
<td></td>
<td>Female</td>
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<td></td>
<td>Total Number of Cases</td>
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<tr>
<td>Communicable Disease:</td>
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<td></td>
<td>Male</td>
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<tr>
<td></td>
<td>Female</td>
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<td>Psychiatric Illness:</td>
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<td></td>
<td>Total Number of Cases</td>
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<tr>
<td>Total Referral:</td>
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<tr>
<td></td>
<td>Male</td>
</tr>
<tr>
<td></td>
<td>Female</td>
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<td></td>
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<tr>
<td>Total Death:</td>
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</tr>
<tr>
<td></td>
<td>Male</td>
</tr>
<tr>
<td></td>
<td>Female</td>
</tr>
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<td></td>
<td>Total Number of Cases</td>
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<tr>
<td>Remarks:</td>
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Annex 9

Reviewing the Effectiveness of Health Sector (including Foreign Medical Teams (FMTs)) response to the aftermath of Nepal Earthquake 2015

<table>
<thead>
<tr>
<th>Name of Hospital:</th>
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<tbody>
<tr>
<td>S.N.</td>
</tr>
<tr>
<td>Serial number of the case</td>
</tr>
<tr>
<td>Patient’s Name (Full)</td>
</tr>
<tr>
<td>First Name</td>
</tr>
<tr>
<td>Middle Name</td>
</tr>
<tr>
<td>Family Name (Ethnicity)</td>
</tr>
<tr>
<td>Age</td>
</tr>
<tr>
<td>Complete age of the patient</td>
</tr>
<tr>
<td>Sex</td>
</tr>
<tr>
<td>Male, Female or Other</td>
</tr>
<tr>
<td>District</td>
</tr>
<tr>
<td>District name - part of patient’s residential address</td>
</tr>
<tr>
<td>VDC/Municipality</td>
</tr>
<tr>
<td>VDC or Municipality name - part of patient’s residential address</td>
</tr>
<tr>
<td>Ward No</td>
</tr>
<tr>
<td>Ward number - part of patient’s residential address</td>
</tr>
<tr>
<td>Tole/street</td>
</tr>
<tr>
<td>Tole or street name - part of patient’s residential address</td>
</tr>
<tr>
<td>Contact No. (Patient/Relative)</td>
</tr>
<tr>
<td>Mobile or phone number of the patient or relative as given in the hospital record</td>
</tr>
<tr>
<td>Date of Admission (DD-MMM-YYYY)</td>
</tr>
<tr>
<td>Date of admission, use standard format of DD-MMM-YYYY, for e.g. 26-Apr-2015</td>
</tr>
<tr>
<td>Date of Discharge (DD-MMM-YYYY)</td>
</tr>
<tr>
<td>Date of discharge, use standard format of DD-MMM-YYYY, for e.g. 26-Apr-2016</td>
</tr>
<tr>
<td>Injury (Single/Multiple)</td>
</tr>
<tr>
<td>Single or Multiple (Single in case of single part of body was injured/Multiple if multiple parts of body are injured)</td>
</tr>
<tr>
<td>Type of Injury (1)</td>
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<tr>
<td>-------------------------</td>
</tr>
<tr>
<td>Type of Injury (2)</td>
</tr>
<tr>
<td>Type of Injury (3)</td>
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<tr>
<td>Mechanism of injury</td>
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<tr>
<td>Surgery (Single/Multiple)</td>
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<td>Surgery Detail</td>
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<tr>
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</tr>
<tr>
<td>Follow-up Required (Yes/No)</td>
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<tr>
<td>Follow-up description (detail)</td>
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<tr>
<td>Post surgery complications (Yes/No)</td>
</tr>
<tr>
<td>Complications (detail)</td>
</tr>
<tr>
<td>Remarks</td>
</tr>
</tbody>
</table>
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