

# USE OF COMMUNITY DEVELOPMENT PROCESS IN DEVELOPING POST-DISASTER ASSESSMENT TOOLS

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**Abstract.** The Philippines frequently experiences natural calamities such as the typhoon that wreaked havoc at the end of 2004 in the provinces of Quezon and Aurora. The typhoon damaged these provinces extensively, destroying many of the homes and facilities, paralyzing the daily lives of community members, and causing an alarming number of deaths in the community. This article describes the development of the methodology and tools for conducting an assessment of the health situation of the affected municipalities of the 2004 REINA flooding. The research group first underwent pre-deployment trainings followed by correspondence with the affected barangays (villages) to ensure social preparation of the community. Intensive data collection was subsequently done using the developed tools, specifically, focused group discussions, key informant interviews, review of records, and ocular documentation. Recommendations on the post disaster health care delivery system rehabilitation plans for the provinces were formulated together with the community. The results and recommendations were subjected to feedback and evaluation to ensure accuracy and acceptability to the community.

## INTRODUCTION

The series of typhoons that devastated the Philippines in the last quarter of 2004 greatly affected the municipalities of Real, Infanta, and General Nakar in Quezon Province (collectively known as REINA) and Dingalan in Aurora Province. The heavy rains resulted in flashfloods and landslides. The country's response was immediate, with government and non-government organizations rushing to aid the affected communities. Rapid assessment was done by several institutions to have more concrete bases for planning activities in these areas. It is in this

direction that this health assessment project and planning was done. This project aims to develop and evaluate the methodology and tools for conducting the assessment of the health situation of the most affected municipalities of the 2004 Philippines Floods. These tools can be used by the local and national government as a guide in their recovery program and in seeking financial support in the accomplishments of their plans.

## MATERIALS AND METHODS

### Development of tools

The following tools were developed: 1) review of records; 2) key-informant interviews; 3) focus-group discussions (FGDs); 4) ocular inspection checklists and 5) documen-

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tation tools. Using preliminary disaster information provided by the Department of Health (DoH), and using several guidelines from WHO and the Department of Health (DoH), the development of the tools was done at the Department of Clinical Epidemiology, University of the Philippines, Manila. Pre-deployment trainings of the team were also done simultaneous with the tool development to ensure understanding of the concepts and objectives of the study, and for the familiarization of the different tools that were to be used.

### **Social preparation**

Letters of endorsements for the project and the project team from the DoH and the League of Municipal Mayors of the Philippines were obtained during initial stages of the project. Consequently, courtesy calls in each of the municipalities were done by the teams to explain the objectives of the project to the local leaders and to ask for their consent to participate in the project. The local leaders in turn informed the rest of the communities of the planned assessment.

### **Data collection**

The data collection was conducted in the three affected municipalities of Quezon Province, namely General Nakar, Infanta, and Real. The five assessment tools developed earlier were used to collect the data. In order to avoid possible biases, data was cross-checked from information gathered from various levels of leadership and from the affected community members themselves. Within each municipality, only one barangay was chosen for data collection. In addition to the severity of damage sustained, the other criteria used for choosing the barangays included general safety and ease of access. The chosen barangays were Barangay Banglos of General Nakar, Barangay Bantilan of Infanta, and Barangay Tignoan of Real.

**Review of records (ROR).** As part of the review of records, guidelines in disaster and emergency management from the DoH and WHO were sourced and applied as necessary. Review of records was conducted, with records obtained from the Barangay governments, the Local Government Unit (LGU), the Rural Health Unit (RHU), and the District Hospital. Additional records were obtained from different agencies at the national, regional, and provincial levels.

**Key-informant interviews (KII).** The key-informant interview was the next step in data gathering. The first step in the interview process was the creation of questions that will enable the researchers to attain their objectives. These questions were arranged in a logical and sequential manner in order to get the most out of the interview. Key-informant interviews of the stakeholders and players in the community were done on the different aspects of the health rehabilitation plan. Uniform greeting and brief explanation of the objectives of the project were given to all the participants.

**Focus-group discussion (FGD).** In order to validate data from the local government, FGDs were conducted among the community members of the chosen barangay. Included in the FGDs were a facilitator, an assistant facilitator, a note-taker, and the participants. All discussions were recorded for transcription purposes. FGDs were also designed for victims in the evacuation centers. However, as there were no more existing evacuation centers in Infanta and Nakar at the time of the study, only one Evacuation Center FGD was held for Real. All participants were given a uniform greeting and brief explanation of the objectives of the project.

**Ocular inspection and documentation.** To determine the present status of the facilities, equipment, and drug supply in the RHUs

and BHSs in the chosen barangays, ocular inspection was done. Observations and actual counts were noted on the corresponding facility checklist and drug checklist. Photographs of the health facilities and other affected areas of the municipality were taken for documentation purposes.

### **Feedback**

All data collected from the field were synthesized and analyzed to come up with the preliminary rehabilitation plan that was presented by the team to the stakeholders of each municipality in the form of a feedback session on May 17, 2005. Additional data were collected and inputs from the stakeholders were noted and included in the final report.

## **RESULTS**

### **Social preparation**

It is important to note that in any community development research, social preparation is crucial. Post disaster, tensions and emotions run high. Local health leaders may be sensitive with regards to their community programs and may be overly defensive of them. The social preparation of the community development process puts the community leaders at ease, making them more open to share their problems as well as their achievements.

### **Data collection**

The focus on multiple source data collection and triangulation of community development was helpful in retrieving data files that may have physically destroyed or lost. Not only is data retrieval possible, but these also allow for data validation as well. Therefore, this experience has shown that despite the loss of filing cabinets of records, it was possible to reconstruct the dataset from other sources. Aside from the review of records, the key informant interviews

helped reconstruct the lost data. The information relayed by the key informants was verified and counterchecked using the FGDs.

**Review of records.** The review of records must be exhaustive and the person carrying out the review should be aware of the objectives of the study enabling him to screen for and identify the necessary facts. Perhaps another resource that may have been tapped in the review of records is the internet. It can serve as a means to communicate with the communities through comments, flyers or discussion groups. It can also be used to gather data on the topography and geography of the communities, which allows for the creation of a comprehensive map of the potential issues and problem spots. Simultaneously, it allows researchers to discover the community's assets in terms of geography, resources etc. Still, availability, accuracy, reliability, and completeness of these resources available on the internet may vary and therefore may have been unacceptable for use in the study. Information in the Philippines is still largely paper-based, therefore extracting data from the internet may be of limited use. In cases wherein necessary data records were damaged by the flood, information was obtained from local officials.

**Key informant interview (KII).** Questions are recommended to be open-ended to ensure freedom of expression on the part of the interviewees and allow them to reveal more on the subject matter. It is imperative that interviewers be trained on how to properly conduct an interview.

In conducting the study, mayors, municipal health officers, barangay captains (of affected barangays), and the councilors for health were interviewed to obtain data regarding their respective municipalities and barangays. These chief executives at the local government level were targeted not only

for their leadership roles and power in the community, but also for their direct involvement in relief efforts and in planning of rehabilitation efforts for the communities. Key informant interviews were also done with hospital directors and Department of Health representatives.

#### **Feedback and development of a primary rehabilitation plan**

The results of this study were also presented in the National Disaster Convention 2005. In addition, local government leaders of the affected communities (*eg*, Mayor Filipina of Infanta, Quezon) shared their personal experiences during the disaster and during their collaboration with the study team in developing their communities' rehabilitation plans.

### DISCUSSION

The team deployed to the communities underwent training prior to community interaction in order to familiarize themselves with the objectives and the tools and techniques to be utilized in the study. Undertaking a community development process not only involves use of tools and techniques, but more importantly understanding them, as this may affect the results to be obtained. Tools refer to a variety of specific steps or processes such as a questionnaire or an inventory whereas techniques are less tangible and is a method of undertaking a task, such as tips on how to communicate and facilitate a group discussion effectively. These tools and techniques are dynamic and evolving. Tools and techniques used in one situation may not necessarily be applicable to another. Thus the tools in this study were streamlined to assess parameters that were pertinent to the disaster that happened in the REINA communities. The pre-deployment training which the team underwent enabled them to understand and apply the tools and

techniques properly to the community.

In socially preparing a community, all sectors of the community must be consulted and involved in the process. Failure to include a sector or group will weaken the effort. Involvement of all sectors however makes the effort locally relevant and acceptable (Hubley, 1993). The participation of the community leaders was vital in the research. They were the first to be tapped and were in charge of disseminating the research effort throughout the whole community. This also allowed the researchers to establish a network of community participants. It is important to note that despite the fact that some sectors and stakeholders of the community may not be willing to participate in the study or are skeptical of the study, they too must be informed of the process and invited to participate despite their resistance. The doors must be kept open for them should they wish to participate later during the research period.

An important element in the interview process that is often overlooked is the establishment of rapport and confidence, aside from enlisting the participants' cooperation (Kashyap, 1992; Fowler, 2008). Especially in circumstances such as in REINA where a crisis has just occurred, participants are more emotionally sensitive. Empathy and compassion towards their current state put the interviewees at ease, encouraging them to divulge sensitive information. During the interview, an explanation of the objectives of the project is mandatory and should be given to all participants. This guarantees that the participants understand what the interview is all about and makes both interviewer and participant goal-directed and task-oriented (Fowler, 2008).

Selection of the key informants is also a crucial step in the interview process. One must ascertain that the stakeholders selected

represent a cross-section of the community being studied, thus avoiding biases in the data gathered. Aside from official and informal community leaders, it is also valuable to conduct interviews with non-community leaders to offset biases such as giving personal views or influencing community members' expression of their views through intimidation or fear (Fowler, 2008). During the actual interview, the interviewers should not only note the verbal response of the participants but should also pay attention to their non-verbal cues and other observations they may have during the interview process (Fowler, 2008). Aside from the interviewer, a note taker should also be present and the interview recorded so that accurate documentation of the interview is accomplished.

There are different types of gatherings for consensus building, though the one utilized in this project was the focus-group discussion (FGD). The FGDs were done in order to validate the data obtained through other means essentially through the self-correcting mechanism of the participants (Kashyap, 1992). In this study, an FGD for both the barangays and evacuation centers were done. As with the key-informant interview, the team conducting the FGD were also trained on how to properly perform the group discussion (*eg.* using non-leading questions) in order to ensure adequate and faithful collection of data. Feedback sessions were conducted for interlocal health zone committees (usually LGUs) which were represented by Municipal Health Officers.

It should be noted however that the communities themselves should be active participants in creating and brainstorming the recommendations. Failure to include them may result in non-acceptance and failure of the projects being proposed (Hubley, 1993). Once the recommendations have been

accepted and enacted, a review of the process and the recommendations should be done at least on a yearly basis. This review needs to be open and inclusive, enabling the evaluation of the recommendations that have been accomplished and those that need to be changed or improved upon. Some points that need to be delved upon in the evaluation process include achievement of the goals, the extent to which the objectives have been achieved, the strengths developed that can be used to improve the community's status, new challenges that have risen since the last evaluation process, the ability of the tool to respond to these changes and additional skills and objectives that need to be created and achieved. Many communities fail to evaluate the results of a process such as this, and failure of evaluation results in failure of the community to learn from past mistakes. The evaluation and feedback process should be part of the community development tool from the very beginning and not as an afterthought. The iterative-consultative process of community development in this case ensured the acceptance of end users of the resulting conclusions and recommendations (Neill, 2007). Feedback sessions were conducted extensively with the three municipalities and the formulated plans were validated by the local government units. Other types of gathering for consensus building could have been used in this project such as meetings, open space, and charettes.

Using the community process in developing assessment tools is a comprehensive and consensus building process that enabled the researchers to make recommendations with regards to the general health situation in REINA after the flood. The local government units' acceptance of the rehabilitation plans may have been largely due to their involvement in the formulation of these

plans and there is a need to revisit these areas to determine the extent to which the rehabilitation plans were realized and successful. The process utilized in this study can be applied in other disaster situations and the rehabilitation plans may guide external funding agencies in terms of the areas that require resource allocation.

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