



## COMMUNITY ENGAGEMENT IN DISASTER PLANNING AND RESPONSE

**RECOMMENDATIONS FOR HONG KONG** 

FXB CENTER FOR HEALTH AND HUMAN RIGHTS

HARVARD T. H. CHAN SCHOOL OF PUBLIC HEALTH

HARVARD UNIVERSITY

POLICY BRIEF

OCTOBER 2015

SUPPORTED BY

HONG KONG JOCKEY CLUB DISASTER PREPAREDNESS AND RESPONSE INSTITUTE

# COMMUNITY ENGAGEMENT IN DISASTER PLANNING AND RESPONSE

**RECOMMENDATIONS FOR HONG KONG** 

Policy Brief October, 2015

Elizabeth Newnham, Kaylie Patrick, Satchit Balsari, Jennifer Leaning FXB Center for Health and Human Rights Harvard T. H. Chan School of Public Health

# Key Message

There is broad recognition among agency leaders and citizens of the need to improve community engagement in all aspects of disaster management.

Effective community outreach in disasters requires understanding community needs and vulnerabilities; framing appropriate forms of communications during routine operations; building trust through educational updates in familiar institutions; and developing emergency warnings and instructions. Viewed narrowly as public education, "the aim is to ensure an alert and informed community."

## A Call for Community Participation in Disaster Preparedness and Response

The Hong Kong Jockey Club Disaster Preparedness and Response Institute (HKJCDPRI) was officially launched in 2014 with primary goal of establishing the evidence base that undergirds development of effective disaster preparedness and response for Hong Kong and the Asia Pacific region.

Hong Kong faces significant risk of natural disasters.<sup>1</sup> Hong Kong has a dynamic, responsive emergency planning process, consisting of a vast web of inter-linked institutions that have continuously improved their mitigation and response strategies. The SARS outbreak, as with past disasters like the Lamma Ferry Incident or the Lan Kwai Stampede, resulted in the creations of new agencies, changed protocols and new laws to protect the people of Hong Kong from physical, psychosocial, and financial harm.

This policy brief builds an expansive Scoping Study conducted by FXB Center for Health and Human Rights at Harvard T. H. Chan School of Public Health, in collaboration with the University of Hong Kong (HKU) and the Collaborating Centre for Oxford University and CUHK (CCOUC), and supported by HKJCDPRI. The Study aimed to provide HKJCDPRI a roadmap for settings its operational and programmatic priorities in its early years of inception. The Study recognized Hong Kong's well developed disaster response machinery and called for an expanded emphasis on less familiar but high stakes disasters, broadening its current disaster training activities, highlighting the importance of addressing psychosocial needs during and after disasters, and strengthening community engagement in disaster preparedness and response. It is the latter point that is the focus of this policy brief, which is a first in a series aimed at highlighting opportunities for advancing disaster response strategies in Hong Kong and the region.

Community preparedness was assessed via four complementary inquiries: (1) A series of interviews conducted with 26 senior officials at institutions responsible for Hong Kong's disaster management procedures and policy, including leaders in the public healthcare system; (2) a survey of 676 agency personnel who have experience as disaster responders; (3) an online survey of 200 physicians and nurses, and (4) a community survey of 1023 Hong Kong residents. The Scoping Study is scheduled for release on October 30, 2015.

The Scoping Study revealed a striking, universal recognition of the need to strengthening community participation in disaster response at multiple levels of inquiry: Nearly all senior officials interviewed for the Study, expressed their desire to see the community take a larger role in disaster preparedness, with a focus on self-reliance and agency, alluding to successful models in other parts of the world. Community preparedness and participation in Japan was most frequently cited as a laudable model. Of note, is the concordant expressed desire of more than 99 percent of community responders for more information on disaster preparedness. This request arises in spite of a finding from previous studies that a vast majority of Hong Kong residents perceived Hong Kong's vulnerability to disasters to be low.<sup>2</sup>

## Current Concepts in Community Engagement

The adage that All response is first local has now proven itself true in a wide variety of settings across the world. The earthquake in Bhuj, Kashmir, Haiti and Nepal; the nuclear fallout at Fukushima, the Tsunami in Indonesia, the bombings in London and Madrid all demonstrate that local capacity is critical in the initial moments after disaster strike. This dependence on local response often a few days in the case of most disasters, and sometimes longer when access is limited by geography, distance, or inaction, as seen in Kashmir, Nepal and Louisiana.

Understanding population vulnerabilities is key to effective disaster mitigation. Populations are seldom homogenous and the impact of a disaster is a product of the risk and the varying vulnerabilities among sub-groups of the population. The impact of a typhoon and subsequent disruption of the electric grid in Hong Kong, for example, will be very different on it various sub populations: the young, the elderly, the rich, the economically disadvantaged, the healthy, and the frail or disabled, those living in small homes, as opposed to those living in high rises, documented residents, domestic workers, and illegal migrants.

The decisions that communities make in the eye of the storm - whether to stay or to leave, where to go, or whether to heed government advice - have great bearing on the impact of disasters. Strategies made in advance are equally important and include financial planning and safety-nets against the destruction of livelihoods, as well as material preparations like evacuation kits, backup medical supplies, and safe copies of important documents.

It is therefore critical that the affected community be equipped in advance with the skills and knowledge necessary to participate positively in the organized official response to likely threats. It has become standard knowledge among disaster experts that inadequate community preparedness has the significant potential to reduce response effectiveness and efficiency, increase the burden on affected populations and infrastructure, and impede the rescue and response efforts of the local and national authorities.<sup>3</sup> Beyond the impacts on response efforts, community volunteers who are unprepared for their roles are at elevated risk of later mental health difficulties due to their close proximity to traumatic exposures and lack of support structures.<sup>4</sup>

Effective community outreach in disasters requires understanding community needs and issues; framing appropriate forms of communications and messaging during routine operations (weather alerts, first aid education); building trust through educational updates and drills in familiar institutions such as places of work and schools; and then developing and evaluating emergency warnings and instructions. Viewed narrowly as public education, "the aim is to ensure an alert and informed community."<sup>5</sup> A more articulated and community-centered view can be found in guidelines issued by the World Health Organization (WHO), according to which:

It should not, however, be assumed that a community represents a unified point of view. Often there are major conflicts of interest and the most vulnerable community members are excluded from decision-making. Real community participation requires methods for actively involving even the most marginalized community members, e.g. the disabled, homeless and displaced individuals, immigrants, and-in some societies—women.

The multi-sectoral, inter-sectoral, and all-hazards approach should be a partnership of relevant organizations and sections of the community, based on identifying vulnerabilities and planning action to reduce them. Within this framework, each partner accepts the responsibilities for which it is mandated, but within objectives defined by the community.<sup>6</sup>

Major components of community outreach during emergencies must deal with baseline postures of the affected populations: These usually have been found to be a resistance to perceiving risk in a particular instance and a reluctance to heed warnings to evacuate or seek shelter. Crafting appropriate warning procedures and providing sound and practical advice are two very important elements in effective disaster risk communication. Furthermore, it is essential that the authorities set up resilient mechanisms to reply to the many calls and messages that will come in seeking advice about what to do and trying to learn whether they or members of their families are at risk of being affected by the disaster. The most effect way to forestall large-scale confusion and distress in these aspects is to provide sufficient content at the relevant times in advance and in modes that clearly inform the community about what is likely to happen and when they need to do in the event that it does.<sup>7</sup>

### Laying the Foundation for Community Engagement in Hong Kong

#### Communication during Non-emergencies

Government officials recognize that it is important to provide a regular platform of communication with Hong Kong residents to provide them helpful, reliable information that they learn to trust. A majority of community members surveyed in the Scoping Study reported that they did not know where to look for information about disaster preparedness. There is, however, ample local precedence in community engagement. A closer look at the demographics of the people who currently access these educational resources, and the way in which they do so, may shed light on the barriers perceived by the larger community.

The Fire Services Department has training programs in schools; their Fire Safety Education Bus is frequently utilized to reach communities across the city. The Hong Kong Red Cross also conducts training in schools and has long believed in the efficacy of school-based trainings to disseminate information within communities. The HK Red Cross focuses on services to local ethnic minorities, people living in high risk areas, and other vulnerable groups. The Drainage Services Department regularly alerts residents to prepare for the rainy season, solicits the public support to help keeping the public drainage systems clear of obstacles, and warns the public of the dangers in or near watercourses through TV/Radio advertisements. The Buildings Department, through its Public Education and Publicity Unit educates owners on building safety and maintenance and conducts educational programs in schools. The Civil Engineering and Development Department proactively engages with the community to promote personal precautionary measures prior to, and during heavy rains, and when landslip warnings are in place. They educate owners of private land on slope maintenance, especially in preparation for the rains. The Centre for Health Protection (CHP) communicates key messages via the website and through Facebook and YouTube. The Hospital Authority communicates update information effectively through the electronic Rapid Communication System (RCS), and via the internet for timely public communication. Online resources include informational material on infectious disease outbreaks, as well as disaster mental health preparedness. The Hong Kong Observatory hosts the highly popular mobile app "MyObservatory," which is used for delivering weather information and warnings to 5 million users in Hong Kong. Along with these agencies, others have reiterated the need for widening the scope of routine community engagement so that the community learns to trust and turn to the government in times of emergencies.

Fewer than 35 of 1000 responders elected for an in-person course as a mode of instruction, as compared to television (40%) or the internet (48%). When asked how residents were most likely

to access further information on preparedness, 36 percent stated that they would do so on the internet via their mobile phones.

Data are not easily available to indicate what percentage of those that are most vulnerable receive key disaster preparedness messages, or are on the government's high priority list for aid and protection during disasters. It is vital that a knowledge base be built within the community during times of calm, so that the government is able to win the trust of its citizens to be able to guide them during moments of crises. It is equally critical that the demographics of the most vulnerable be studied and mapped, as they are most susceptible to delayed or insufficient care. For example, in the seaside Tai O village in Lantau that is highly susceptible to storm surges, The Home Affairs Department (HAD) and the Police maintain a contact list of all the elderly people in the village. The list is regularly updated, especially prior to the typhoon season. At times of emergency, Police and other emergency responders would go door to door if necessary to ensure these elderly people are evacuated to shelters established by HAD.

### Communication during Emergencies

Building on a foundation of non-emergency information pathways, acute disaster response requires efficient and effective communication from national and regional leadership. According to the Scoping Study, more than 20 percent of residents did not know where to get information during disasters. Others stated that they would look for information on television, on Facebook or on other social media platforms. Few indicated that they would seek news from government websites, among which the Hong Kong Observatory, and to some extent CHP, seem to enjoy the largest online following.

Understanding the community's information needs may help build platforms that are most likely to be accessed, used and trusted. Community members interviewed in the Scoping Study prioritized medical assistance, evacuation plans, shelter, missing persons and casualties as key aspects of the information they would like to seek during a disaster.

Establishing information and communication networks prior to the emergence of a major disaster is critical to engaging residents and attaining community investment in city-wide response strategies. Preparedness information should span responses to expected and familiar disasters (such typhoons, infectious disease outbreaks and transport accidents) as well as less familiar events (including terrorism or nuclear accidents). The government should consider identifying community training priorities for each of these various types of disasters. Engaging well-prepared agencies and building a familiarity with the range of procedures and infrastructure already in place will foster a strengthened sense of efficacy in the community.

### Vulnerability Mapping

Meeting the preparedness needs of the general public must be supplemented with measures to reach more vulnerable populations. In any disaster, special populations face distinctive risks. Social and logistical measures to address the needs of children, the elderly and people with disabilities will be critical to effective response. Among the vulnerable in Hong Kong are also its migrant and domestic workers, often separated from Hong Kong's affluent society not only by a significant socioeconomic divide, but also by language. Over one fourth of respondents interviewed reported that they would have less than twelve weeks of savings, were a disaster to affect their livelihood.

Hong Kong's high density and urban infrastructure require careful consideration in preparedness planning. Elderly populations, people with disabilities and other issues of mobility will require specific information on evacuation, medication stockpiles and availability, personal security and alternative modes of communication in a disaster. Conversely, the government needs access to up-to-date maps of vulnerable populations. During the Scoping Study interviews, when officials of key response agencies were asked how they would access the elderly in high rise apartments, in case of a large-scale blackout (similar to Hurricane Sandy, in New York), they reported that their officers would need to conduct door to door assessments, or seek information from property owners - collating which would be fairly time-consuming. Hospitals and other healthcare institutions like nursing homes are also vulnerable to these multiple-hazards where electricity grids may fail as a result of typhoons and rain.

Among the Hong Kong residents that responded to the Scoping Study, 58 percent indicated that disability would be a significant barrier to movement. Since Hong Kong Island does not lend itself to mass evacuation, under most circumstances, residents would have to shelter in place. Thousands would need assistance with their ongoing medical needs. The infirm living in high rises would be particularly dependent on government aid in the absence of robust community ties.

Children are dependent upon family security and support, and unaccompanied minors may be at significant risk of harm in a major disaster. Working with schools, hospitals and child care providers to determine communication and unification strategies with families as well as evacuation procedures is equally vital.

## Roadmap for Future Preparedness

Hong Kong is a dynamic high-income city with robust disaster preparedness. Within government and non-government agencies, contingency plans and disaster drills have been carefully considered and rehearsed. However, a significant gap exists in community awareness and engagement in disaster preparedness activities.

There is tremendous opportunity for the Hong Kong government to establish information networks that will build trust with the local community and institute basic preparedness knowledge and skills. There are a number of avenues by which this can be achieved:

First, creating reliable and recognized information hubs are vital. The Hong Kong Observatory and HKJCDPRI could play key roles in delivering the information most often sought by communities through their websites and via TV segments (news programs, interviews and advertising). An awareness campaign, highlighting current preparedness strategies, technologies and infrastructure already in place could be led by the HKJCDPRI and other established agencies. Social media platforms will play an important role in future disasters, and so a strong presence of government and non-government organizations with accurate and reliable information will be important.

Second, the HKJCDPRI, Hong Kong Academy of Medicine and local universities could play a critical role in training professionals. Preparedness trainings can be delivered via school programs, marketplaces, small business, social organizations, readily accessible community facilities and NGOs.

Third, disaster drills integrating communities, including schools and businesses, could improve knowledge, increase self-efficacy, lower anticipatory anxiety and foster trust in government procedures. A particular focus on mobility strategies and household preparedness would ensure that the vulnerable are identified in advance.

Hong Kong's disaster response system has been iterative and dynamic, building on first-hand experience and carefully studied best practices. Disaster events have resulted in introspection and positive change. Addressing this urgent call for increased community engagement can only strengthen its response and recovery capabilities.

#### References

1. Swiss Re. (2014). Mind the risk: A global ranking of cities under threat from natural disasters. Received from http://media.swissre.com/documents/Swiss\_Re\_Mind\_the\_risk.pdf

2. Chan, E.Y.Y., Lee, P.Y., Yue, J.S.K. &, Liu, K.S.D. (2014). Socio-demographic predictors for urban community disaster health risk perception and household-based preparedness in Chinese urban city. Paper presented at: 12th Asia Pacific Conference on Disaster Medicine (APCDM); 17-19 Sept 2014; Tokyo, Japan.

3. Scanlon TJ. Reaching out: Getting the community involved in preparedness. In: Drabek TE, Hoetmer GJ. eds. Emergency management: Principles and practice for local government. International City Management Association. Washington DC, 1981:79-100.

4. Thormar, S., Gersons, B., Juen, B., Marschang, A., Djakababa, M., & Olff, M. (2010). The mental health impact of volunteering in a disaster setting. The Journal of Nervous and Mental Disease, 198, 529-538.

5. Australian emergency manual: Community emergency planning guide. National Disasters Organization, 2nd ed. Canberra, 1992.

6. World Health Organization. Community emergency preparedness: A manual for managers and policy-makers. WHO. Geneva, 1999:17.

7. Auf der Heide, E. Disaster response: Principles of preparation and coordination. CV Mosby. St. Louis, Missouri, USA, 1989:195-213.







#### In collaboration with:



Collaborating Centre for Oxford University and CUHK for Disaster and Medical Humanitarian Response CCOUC 災害與人道救援研究所





Funded by:



香港賽馬會慈善信託基金 The Hong Kong Jockey Club Charities Trust <sup>同心同步同進 RIDING HIGH TOGETHER</sup>