

Disaster Preparedness in Hong Kong

A Scoping Study

Executive Summary

The Hong Kong Jockey Club Disaster Preparedness and Response Institute (HKJCDPRI) was established in 2014 with the goal of creating a center of excellence in disaster response research and training, in collaboration with a range of local, regional, and international partners.

In order to assist HKJCDPRI in identifying priority areas for research, training and partnerships, the FXB Center for Health and Human Rights at the Harvard T. H. Chan School of Public Health took the lead, in coordination with the Harvard Humanitarian Initiative, the Emergency Medicine Unit at Hong Kong University (HKU), and the Collaborating Centre for Oxford University and CUHK for Disaster and Medical Humanitarian Response (CCOUC), in undertaking an extensive survey of multiple stakeholders in Hong Kong.

The Scoping Study, conducted at a time when Hong Kong is strengthening its relationship with the Mainland and seeking to redefine its role in the region, offers unique insights into the strengths and self-identified needs of a range of actors engaged in the city’s disaster planning. Having interviewed government officials, responders, and civilians, the Study is able to juxtapose and integrate their multiple viewpoints with the aim of helping authorities and academics chart a course that is most beneficial to the people of Hong Kong.

Methods

The Scoping Study was a mixed-methods needs assessment that combined innovative sampling techniques with online surveys and in-depth interviews. The Community Survey recruited over 1000 Hong Kong residents, located via randomly generated GPS points distributed in proportion to the population of each district in Hong Kong. The Agency Personnel Surveys were administered online to over 600 responders from the Hong Kong Police Force, the Hong Kong Fire Services Department, Auxiliary Medical Service, and the Civil Aid Service. The online Healthcare Personnel Survey included over 200 responses from physicians and nurses from across 10 colleges of the Hong Kong Academy of Medicine, and 14 nursing colleges. These structured surveys were augmented by in-depth interviews with senior officials from 19 government and service agencies, and 4 healthcare institutions.

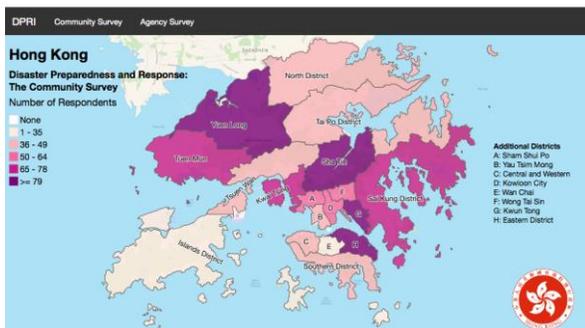


FIG1: Community Survey Data by District

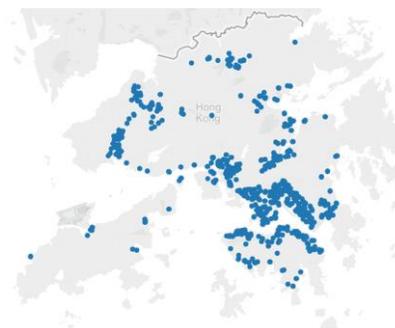


FIG 2: Community Survey Data by GPS Points

The Questions

The survey instruments spanned a broad spectrum of issues, including questions on individual, institutional, and city preparedness and response capabilities; anticipated behavior and choices in the face of a disaster; and information on specific mitigation and response skills. Community members were asked questions around communication, evacuation, financial safety-nets, and response strategies. First-responders were queried on the type, frequency, and efficacy of their trainings. Healthcare professionals answered questions specific to disaster response training and professionalization. Senior officials were asked about their training needs with a focus on coordination, communication, and community-outreach. Those familiar with HKJCDPRI shared their views on HKJCDPRI's potential role within the disaster mitigation community.

The Results

Hong Kong has a highly accomplished disaster planning, preparedness, and response system anchored under the Security Bureau but encompassing an impressive range of highly sophisticated partners. Agencies like the Police, Fire, Fire Ambulance, Hospital Authority, and Civil Aid Service are some of the predictable major players, but a plethora of public and private actors including the Information Services Department, Hong Kong Observatory, MTR Corporation, Towngas, Marine Department, Drainage Services Department, Buildings Department, and many others play critical roles in various types of disasters. Each of these agencies has well developed contingency plans; most of them train their personnel on a regular, periodic cycle; and some institutions participate in inter-agency drills on an occasional basis. Almost all respondents within agencies and their senior administrators expressed a strong interest in promoting greater community engagement in disaster preparedness, including general and targeted community training in disaster mitigation and response.

Nearly all ordinary citizens interviewed (99%) expressed an interest in receiving more information about disaster preparedness and many reported that they would not know where to access such information were it available. One third of community members thought that Hong Kong was adequately prepared for disasters, while an equal number were dissatisfied with the city's preparedness. Although there was wide variation in contingency plans among residents, over half noted that they faced major barriers including disability and mobility challenges or not knowing where to go.

Senior officials across government agencies and healthcare institutions expressed the urgent need to strengthen community engagement. This theme is explored in further detail in the accompanying policy brief, *Community Engagement in Disaster Planning and Response: Recommendations for Hong Kong*.¹ Many agencies expressed a need for multi-hazard drills; planning for prolonged disasters; and for preparing to respond to low probability, high stakes catastrophes like disruptions in essential services or a nuclear power plant accident. Once again, emphasis was laid not only on multi-agency preparedness and coordination but also on the need for community participation.

¹ Newnham EA, Patrick KA, Balsari S, Leaning J. (2015). Community engagement in disaster planning and response: Recommendations for Hong Kong: FXB Center Policy Brief October 2015.

The 676 frontline responders, who had spent an average of 16.8 years at their institution, had greater confidence than their civilian counterparts in Hong Kong's preparedness and endorsed their agency's training and disaster drill plans. More than half felt that their respective agencies were adequately prepared. Over 91% of the Police Force and Fire Service respondents were familiar with their institutions' disaster drills.

There is scope for formalizing smart-phone based communication and social media engagement during disasters. Multiple key response agencies are already on the Unified Digital Communications Platform. In addition, most supervisors reported using commercially available applications like WhatsApp to communicate with teams during disasters, citing speed, reliability and convenience as a motivator. A few agencies, like the Centre for Health Protection and the Hong Kong Observatory, regularly disseminate information online via their webpages, Facebook or YouTube.

Healthcare professionals report a dearth of professionals trained in disaster response. They note that providers with some degree of training in disaster medicine are mostly from the Accident and Emergency departments (A&Es) or the critical care departments. Their number is not large. Physicians in general medicine and allied specialties have expertise in epidemic infectious diseases but may not be conversant in other aspects of the disaster management. While the SARS epidemic resulted in excellent advances in Hong Kong's preparedness capabilities, the senior physician leaders we interviewed stated that there is much work to be done in training healthcare professionals with core competencies in clinical disaster response skills, disaster response coordination, communication, and leadership. While some see disaster medicine as a natural ally of emergency medicine and a subspecialty within the College, others see it as foundational knowledge that ought to be a requisite for most medical professionals. The lack of professional incentives to acquire such knowledge and training was reported as a significant barrier to the full-scale development of an independent specialty.

The Potential Role for HKJCDPRI

The Scoping Study demonstrates Hong Kong's unequivocal commitment to disaster preparedness at many levels of governance and professional expertise. Billions of Hong Kong dollars are spent annually in disaster mitigation activities ranging from repairing hillside slopes before the advent of the monsoon, enforcing strict quarantine measures at airports, conducting food inspections, monitoring adherence to building codes, protecting the mass transit infrastructure, conducting agency and inter-agency drills, and maintaining outreach to the community. Many of the agencies interviewed called for HKJCDPRI to augment community preparedness, participation and self-reliance during disasters.

Most agencies and personnel expressed an interest in overseas engagement to learn from international best practices and to receive hands-on overseas training to be better prepared for domestic disasters. Currently, the opportunities do so are limited, and restricted to a few government initiated interventions aimed at rescuing Hong Kong citizens affected by a disaster event. Interviewees acknowledged that greater overseas engagement would require a policy shift.

Several interviewees suggested that HKJCDPRI serve as a knowledge repository and a regional information-exchange hub, leading academic research and collaboration across the region.

In summary, the Scoping Study reaffirms Hong Kong's robust disaster planning machinery and sheds light on the universally felt need for expansion of efforts in these domains:

- Outreach to and engagement of members of the general Hong Kong community;
- Inclusion of less familiar and infrequent disasters within the scope of disaster preparedness and community engagement;
- Investment of more resources in training and professionalizing the Hong Kong response sector, including healthcare professionals; and
- Deployment of capabilities in mobile technology and the internet for disaster communication and coordination.

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