Learning from Recent Global Health Disaster Risk Cases

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Recent years have seen several cases of global health disaster risks inside and outside Asia. In the case of Severe Acute Respiratory Syndrome (SARS), which emerged in southern China in late 2002, the largest number of infectious cases (7,782) and the most deaths (729) occurred in Asia. The outbreak in late 2003 of H5N1 avian influenza in humans has largely been confined to Asia, with more than 250 deaths over the past six years. The ongoing H1N1 “swine flu” pandemic that began in Mexico has appeared moderate so far, but this could change; as of July 6, 2009, the World Health Organization (WHO) had reported over 94,512 cases and 429 deaths, including a fatality in the Philippines and seven deaths in Thailand. National and regional responses to this case in Asia, especially in China and Japan, have highlighted several problems. What lessons can be learned from recent global health disaster risks that will better prepare Asia for the future?

Preparing for future global health disasters is a challenge with unpredictable variables, including the course the virus will take and which vaccines will be effective. The accumulative and unpredictable nature of these viruses makes it difficult to predict the scale of the disaster, when it may come, who may be affected, and what kinds of associated problems, such as economic consequences, may occur.

For example, SARS reportedly cost the world about $40 billion including flight cancellations, school closings, and panic in Asian markets, but some estimates predict that a serious global pandemic could cost more than $330 billion and result in more than 1.4 million deaths worldwide. Since it is almost impossible to control the when, where, and what dimensions of global health disaster risks, there is a need to focus more on how to adapt to the unpredictable and uncertain nature of diseases in general and influenza specifically.

In terms of how, people tend to think that WHO can do everything required to meet health challenges by directing and coordinating different organizations and agents on a global scale, serving as the authority in providing leadership on global health matters and shaping the health research agenda. However, it is important to understand the limits of WHO. For example, WHO’s budget for the two year period 2008-2009 was about $4.2 billion, which is very small compared to, for example, the budget of the U.S. Department of Health and Human Services, which was more than $700 billion in 2009 alone.

Capabilities and limits within the existing mechanisms of WHO can be seen from several cases in Asia. First, the Global Outbreak Alert and Response Network
GOARN, which began in 2000, is a primary mechanism used by WHO for monitoring, with the technical collaboration of different institutions and networks, the outbreak of infectious disease on a global scale. GOARN succeeded in identifying SARS in a Chinese city with the cooperation of counterparts in the United States and Canada and has proved its surveillance capability. However, this success does not mean that GOARN can by itself identify every item of epidemiologic surveillance data worldwide. Surveillance systems of local and national governments are therefore equally important. For example, when H1N1 flu cases were, surprisingly, identified in persons in Hyogo Prefecture, Japan who had never traveled abroad, the prefecture took steps to protect its citizens by declaring that it would build a community-based surveillance network for early detection.

Second, the International Health Regulations (IHR), which WHO revised in 2005 and became effective in 2007, introduced new operational concepts, including notification by member countries of all public health emergencies to WHO. Although it is a step forward in sharing information about global health risks, WHO does not have the power to enforce the requirements of IHR. Moreover, IHR by itself has only limited power to facilitate the open flow of information regarding various disease outbreaks. For example, the Indonesian government stopped sharing virus samples with WHO in 2006, contending that WHO gave the samples to pharmaceutical companies to make vaccines, which would likely be unaffordable in poorer countries in the event of an outbreak.

Third, regarding WHO’s alert system, the declaration of Phase 6 in the H1N1 case does not by itself initiate any particular action. In this sense, it is critical that risk awareness and communication take place within countries and regions themselves in order to minimize the social and economic impacts, including not rushing into unreasonable or questionable measures. For example, responding to the H1N1 case, it was reported that Chinese authorities focused on Mexicans who did not have any visible symptoms, yet were targeted as nationals of the country where the disease was first discovered. In Japan, government officials and the media have used the term “a new-type (shin-gata) influenza” in uniform ways to respond to the H1N1 flu, without considering the virulence of the virus or differentiating between the H5N1 and H1N1 flu. As a result, Japanese society rushed into some unreasonable measures: for example, people in areas where infections were identified have begun to wear masks whenever they leave the house.

These Asian cases demonstrate that there are numerous areas in which WHO is not effective in addressing all aspects of global health concerns, particularly from social perspectives. There are few mechanisms to fill the void at regional and national levels, especially in Asia. In order to prepare for potential global health disasters, Asian countries should focus on creating a global-local nexus, such as linking global-local surveillance systems, and synthesizing practices in risk awareness and risk communication with training and exercises in integrated ways.