

## EDITORIAL

### SARS AND SAARC: LESSONS FOR PREPAREDNESS

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The unprecedented SARS outbreak in China has threatened everyone on this globe. Lack of knowledge on virus, poorly understood mode of infection and natural history has alarmed every nation<sup>1</sup>. Established in 1985, South Asian Association of Regional Co-operation (SAARC) is the association of seven countries (Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka)<sup>2</sup>. The threat of SARS is particularly eminent in the region. There are several reasons to believe that local transmission routes can spread the deadly virus from the epicentre of China further to the SAARC countries<sup>3</sup>. Three out of seven SAARC countries, i.e., Nepal, India, and Pakistan share direct borders with China. Already overwhelmed with increasing burden of infectious diseases like TB, HIV/AIDS etc, triage of patients with SARS is complicated issue in these poor resource settings that lack sophisticated surveillance networks, diagnostics and treatment facilities<sup>1-5</sup>. Like China, SAARC countries are densely populated and no screening exists on the SAARC-China borders where influx of new SARS cases or exposure can be meticulously detected or monitored. It is very likely that SARS cases might have mixed in the population or escaped the screening channels or do not report at all. Since the index case (February 2003), local transmission has widely disseminated and the virus has indiscriminately crossed the international borders. The number of cumulative cases has reached to 7761, and 623 deaths have occurred so far. Neighbouring countries like Taiwan (274), India (3), Singapore (205), Mongolia (9), Thailand (8), Philippines (12), Republic of Korea (3), Indonesia (2), Malaysia (7) and Viet Nam (63) have been invaded by the virus<sup>1</sup>.

Based on the pattern of transmission WHO has classified areas into four categories<sup>1</sup>. According to WHO, local transmission occurs when one or more reported probable cases of SARS have most likely acquired their infection locally regardless of the setting in which this may have occurred. If no new locally acquired cases are identified 20 days after the last reported locally acquired probable case died or was appropriately isolated, the area is removed from the list of categories. Pattern A include imported probable SARS case(s) that have produced only one generation of local probable cases, all of whom are direct personal contacts of the imported case(s) as in areas like Jiangsu, Hubei, and Shaanxi in China. Pattern B have more than one generation of local probable SARS cases, but only among persons that have been previously identified and followed-up as known contacts of probable SARS cases. SARS cases reported from Jilin, Hebei in China, Philippines (Manila) and Singapore comes under this category. Pattern C is specified for local probable cases occurring among persons who have not been previously identified as known contacts of probable SARS cases. For example, Beijing, Taipei, Shanxi, Tianjin, Inner Mongolia, Guangdong and cases of Hong Kong in China. Pattern Uncertain is the fourth category that has insufficient information available to specify areas or extent of local transmission<sup>1</sup>. Contact tracing has established epidemiological links for the majority of Hong Kong's SARS patient. Around 9% of cases have no identifiable exposure source. The list of areas with recent local transmission is updated on daily basis by WHO to facilitate use of the SARS case definition to detect, report suspect cases. Surveillance must be enhanced to detect any unusual pattern of infection similar to SARS in the SAARC region.

China is also geographically surrounded by the Russian States, Kazakhstan, Myanmar, Vietnam, South Korea, and Indonesia. According to WHO report 2000 health system performance has been worse especially in responding to major public health threats in the overall region<sup>4,5</sup>. Dr. Peter Roeder of the Food and agriculture organisation of the UN said that high density population in China and close contact with the several species of intensively farmed livestock potentially provides substrate for cross species transmission, evolution and amplification of many pathogenic agents<sup>6</sup>. Public awareness on the threat of infections is fairly low and environmental receptivity to contract infections high<sup>2-5</sup>. Delays in referral pathways and reporting have been widely blamed for the increasing burden of infectious diseases<sup>1,3,5,7-10</sup>. According to the latest WHO estimates, infectious diseases caused 14.7 million deaths in 2001; accounting for 26% of total global mortality comes predominantly from region like Africa and SAARC<sup>5</sup>. Re-emerging old and novel infections serve a thwarting

factor and add more to the ill health. In the efforts to contain SARS virus, screening check points are operating merely at the international airports across China<sup>1</sup> however, prompt step has not yet been taken to disrupt other routes of possible transmission. Road traffic and other means of transportations like ships leaving and entering China need to be subjected to meticulous screening. Realizing the fact that the actual magnitude of SARS is still not known in China as well as in the SAARC region any further ignorance can devastate public health of the entire region<sup>1</sup>.

Due to the speed and volume of international travel SARS has rapidly become a threat to the international health<sup>1</sup> and has denoted two broad sets of trends in the recent times, one that is characterised by divergence and the other by convergence. SARS threat has diverged considerably from the patterns and epidemiology of other infections, nature, treatment and prophylaxis, unique geographical distribution and severity. SARS has also brought diverse nations together to converge on common threat and to allocate resources and scientific vision towards its control. Setting up control measures are therefore a key issue as such divergence arises from the natural behaviour of the causative agent, which is not only complex but also constantly evolving. To put the masses on high alert this has become obligatory to inform public with all possible ways, to detect and trace cases through both passive and active ways in the SAARC countries. In terms of preparedness, SAARC countries urgently need to call for several robust modalities that aim at strengthening local and international capacity to contain epidemic-prone and emerging infectious disease threat that has been evolving in the neighbourhood for several months. Adopting a three-pronged approach, which acknowledges the need for different strategies to combat known risk of SARS, to respond and to improve national preparedness. In this fight hospitals need to be the focus of attention where nosocomial infection has a pivotal role in the dissemination. Combined with the other regional countries, SAARC needs to work towards co-ordinating the national control efforts of the Member States and serve as a regional co-ordination centre of SARS in the region. Centre for information exchange and related activities, collecting, collating, analysing and disseminating all relevant information regarding the latest developments and findings and elsewhere should be actively documented and disseminated. Stringent public protective measures, reconnaissance of unusual infections, implementing WHO precautionary measures for mass gathering, and blood transfusion need to be given priority in the SAARC policy.

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