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Strategy Behind Ebola

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While fatality rates from the recent Ebola epidemic seem staggering, there are many scary viruses and bacteria that kill thousands every year without grabbing headlines. The world is brimming with many potent viruses of which Ebola is just one. The current Ebola outbreak ravaging in the West African continent has threatened the existence of the three countries, which are struggling in its clutches. For a developing country like India, situation is no better, given the confluence of existing environmental, socio- economic and demographic factors. The world is now witnessing the explosion of Criteria A pathogens that has no known treatment or prevention. India, with its over-burdened healthcare system and a huge population will be an easy prey to these ghastly viruses that almost kill all their victims.

WHO has issued several recommendations to improve India's national response towards infectious outbreaks and these are in various stages of development. Ms Asheena Khalakdina, the WHO's Team Leader for Communicable Diseases, recently told Reuters that there were critical gaps in India's Ebola preparedness, which questioned the country's capacity to tackle an outbreak of such a magnitude. Most of these viruses are so rare and hence do not attract any corporate benefits for big pharma companies that invest millions into research and drug development. With potent viruses knocking on doors, it is important to have a collaborative response from the scientific community and the government to devise a comprehensive national strategy, cutting across all relevant spheres to strengthen disease surveillance and research.

Need for a legal framework

In this age of non-communicable diseases, contagious illness still accounts for 30 percent of disease burden in India. Apart from various biological and behavioral public health interventions, the government now needs to closely look at the structural intervention, that is, the legal framework to review health system preparedness. Though India has a number of legal mechanisms to tackle epidemics, they are not addressed under a single legislation. Recent unprecedented outbreaks happening across the globe have raised fears, as to whether a century old Epidemic Diseases Act of India, formulated in 1897, is sufficient to combat the new challenges.

Currently, only the National Institute of Virology in Pune is explicitly tasked with studying viruses. Considering the plethora of dangerous bugs that sporadically erupt as epidemics in India, adequate research to contain the explosion of these viruses is not sufficiently carried out. Though Indian vaccine makers now have the capacity to quickly churn out prophylactic vaccines in wake of an epidemic, effective administration of this vaccine among the population is again a challenge.

The threat of zoonoses

Of late, the journey of microbial agents from one country to the other is often shorter than the incubation period of the organism, rendering border controls futile. New emerging and re-emerging infections have reiterated the need for a sound legal policy and framework to support efforts against emergent infections. Establishing more public-private partnership models to address the broad factors of emergence and immediate identification, quarantining and reporting of cases are major steps in this process.

The challenge is broad, but in view of the increased pace of emergence and the globalization of disease, the importance of a comprehensive legal and policy framework cannot be overstated. The threat of Zoonoses Global experts indicate that most of the human pathogens originated from animals, and nearly 75 percent of emerging infectious diseases are zoonotic. Mr Manish Kakkar, a senior public health specialist at Public Health Foundation of India, pointed out that the veterinary sector, human sector and wildlife sector need to join forces to effectively combat the spread of zoonotic diseases.

"In India, there is very little awareness about zoonoses, even among health professionals, which prevents prompt identification of the disease," added Mr Kakkar.
"Since humans exist with animals, the high-risk interfaces between humans and animals need to identified, as well as behavior that increases contact with wildlife needs to be altered to be able to tackle zoonotic disease outbreaks," said Mr Jonathan H Epstein, EcoHealth Alliance's Asia director.