Successfully Managing Swine Flu (H1N1) 2015 and the Way Ahead: The Rajasthan Model

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The H1N1 infection hit Rajasthan hard in the beginning of 2015, perhaps because of the high density and higher migratory population. Anticipating the impact, the Honorable Chief Minister constituted a high powered task force under the chairmanship of a technical person, a decision highlighted by New York Times. It must be mentioned that all the resources were provided. The task force initiated and galvanized uniform rapid action system across the state to achieve a remarkable success in reducing the percentage mortality and saving 95% adults and 98% elderly population respectively. The virus continued to spread across the country in majority of the states in India. Rajasthan has achieved gross reduction to less than 5% of OPD and IPD numbers. This incidentally has also been endorsed by the Media.

The Action Initiated

(1) The task force, a high powered committee consisting of administrators, clinicians, domain experts including Drug Controller, Director, IEC, the Media, Public Relation Officer and invited experts created a unique comprehensive model, which initiated a rapid standardized action force, pre-empting complications. Special services were provided with uniformity across the state from primary to tertiary care by involving the Divisional Com-

missioners, Principals of Divisional Medical Colleges, Health Administrators with the central control in the capital, which provided time-to-time advice while reviewing all the developments on a day-to-day basis and acting speedily on the feedbacks.

(2) Dedicated IPD and OPD services around the clock with experts' opinion in clinical medicine, chest medicine and critical care were asked to supervise the treatment planning as per the guidelines of WHO in a critical care unit. The critical care team with the clinicians was updated on all specific medical developments in the critical management of serious H1N1 patients.

(3) The guidelines were modified by the experts from time to time after reviewing the local needs by focusing on prevention. Adequate oral drugs and rapid diagnostic facilities were provided free of cost, which significantly helped in combating the menace. The IEC and the public health experts also contributed in the process.

The Impact

(1) Those who reported late or were at higher risk lost lives while about 150 people were saved through early deployment the ventilator. The task force committee took courageous decisions of need-based modifications of the WHO guidelines and used the primary and secondary

network for early detection of high risk, including pregnancy, and provided treatment.

(2) The disease was contained and not allowed to spread beyond the initial districts, and the number of infected cases and the death rate also started declining from the last week of February and was almost 10% by the last week of March with the current instance of infection less than 5–6%.

(3) The cure-rate and mortality was the lowest in the state of Rajasthan, as compared with other states like Maharashtra, Gujarat, Madhya Pradesh, Punjab, etc., where the instances of mortality were much higher.

The Way Ahead

(1) The swine flu or H1N1 virus after the pandemic in 2009 has emerged as a common flu virus and has been known to cause outbreaks all over the world. The experience of 2015 and taking into consideration the outbreaks from 2010 and thereafter, must serve as a great learning experience; we must prepare for future epidemics that may spread. Thus, the need to build a warning and response system, which is alert and spontaneous, is needed.

(2) There is a critical need to reinforce basic public health systems including primary healthcare facilities, laboratory surveillance systems and critical care facilities

among other components, the existing infectious disease surveillance system named as I.D.S.P. This is far below the expectations and needs to be restructured so as to connect the sub-centers, primary health centers, secondary care centers and tertiary care centers in order to identify the earliest focal outbreak. With the implementation of e-governance, this could be easily achieved. It should be possible to have a system in which information on suspected cases, locations, surveillance and other key elements are entered into a digital database that would instantly be accessible to the relevant organizations and agencies in the state.

(3) The state needs to have an infectious disease institute, which will closely monitor the IDSP developments and also provide training for early detection, management practices, critical care training and run courses in infectious diseases and critical care medicine. Experts will also need computer models to predict what might happen and which infections need prioritization.

(4) A serious outbreak or an epidemic is one of the few catastrophies that could set the state back drastically on new found speed of developments. By building a state warning and response system, we can prevent hundreds of deaths.

(5) The top administrative authorities in collaboration with healthcare workers need to be vigilant, create a disease calendar and practice carrot-and-stick approach to bring about the desired output.