

# Lessons Learnt from the China's Response Plan in the Battle against Corona Virus Disease 2019 Outbreak

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The corona virus disease 2019 (COVID-19) outbreak, which originated in the Wuhan city of China, was declared as a Public Health Emergency of International Concern and subsequently the overall risk of global transmission has been categorized as very high.<sup>1,2</sup> A total of 88,948 cases of the disease has been reported till March 2, 2020 worldwide, of which China alone accounted for 90% of the cases.<sup>1</sup> However, it is worth noting that owing to the consistent, aggressive, and expedited efforts of the public health authorities, the number of new cases reported from China has shown a significant downfall and even reversal in trend. In fact, in the last 24 hours, China reported only 206 new cases, while the rest of the world together accounted for 1,598 cases and similar sort of trends have been reported in last 5 days.<sup>1</sup>

It is quite obvious that this has not happened on its own, especially knowing the fact that the causative virus was novel in nature and, until now, we are still not conclusive about various epidemiological and clinical characteristics of the infection.<sup>2,3</sup> China, as a nation implemented multiple strategies and kept revising them based on the evidence which was generated as the outbreak evolved.<sup>2,3</sup> In fact, owing to the intensive efforts of the researchers and public health experts, they made significant strides in virus isolation, laboratory tests, predominant mode of transmission, incubation period of the infection, etc., and all these findings aided the health sector to timely shape their response.<sup>2-4</sup>

Simultaneously, efforts were made to expedite the pace of case detection, establish facilities for isolation, and initiation of early treatment enhance the capacity building of the health personnel by training them and strengthen the domain of contact tracing (for instance, in Wuhan only 1,800 epidemiologists were employed for contact tracing) and risk communication.<sup>2-5</sup> At the same time, innovations were also employed, including the use of artificial intelligence techniques to forecast the incidence and distribution of the disease and adoption of 5G networks to improve the health sector response in rural areas.<sup>4</sup> Further, the policy

makers from the different provinces continued to support the relief actions by posting thousands of health workers and also ensured that the supply of the personal protective equipment is maintained.<sup>2,4</sup>

However, the outcome of all these interventions still would have not delivered encouraging results, had members of the community were not actively engaged. In fact, the local residents dealt with the outbreak on a positive note and adhered to all the advice of health authorities, including suspension of public gatherings or travel restriction, or support for contact tracing.<sup>4</sup> The outcome of all these interventions is quite evident as China has not only significantly reduced the disease incidence but even brought about a decline in the footfalls in hospital and bed-occupancy rates.<sup>4</sup> However, the need of the hour is to continue the good work and strengthen it further in each of the province of nation, as the authorities have to continue treatment to 50,000 infected people and also ensure that resurgence in cases is avoided.<sup>3-5</sup>

In conclusion, even though, the caseload has reduced in China, still a lot needs to be done to improve the overall response capacity of the public health emergency. The overall response plan to COVID-19 outbreak is quite inspiring and it reemphasizes on the fact that concerted efforts can deliver encouraging outcomes.

## Conflict of Interest

None declared.

## References

- 1 World Health Organization. Coronavirus disease 2019 (COVID-19) situation report 42. Available at: [https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200302-sitrep-42-covid-19.pdf?sfvrsn=224c1add\\_2](https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200302-sitrep-42-covid-19.pdf?sfvrsn=224c1add_2). Accessed March 3, 2020
- 2 World Health Organization. 2019 Novel Coronavirus (2019-nCoV): Strategic Preparedness and Response Plan. Available at: <https://www.who.int/docs/default-source/coronaviruse/srp-04022020.pdf>. Accessed April 6, 2020

- 3 Song QQ, Zhao H, Fang LQ, Liu W, Zheng C, Zhang Y. [Study on assessing early epidemiological parameters of coronavirus disease epidemic in China] (in Chinese) *Zhonghua Liu Xing Bing Xue Za Zhi* 2020;41(4):461–465
- 4 World Health Organization. Report of the WHO-China Joint Mission on Coronavirus Disease 2019 (COVID-19). Available at: <https://www.who.int/docs/default-source/coronaviruse/who-china-joint-mission-on-covid-19-final-report.pdf>. Accessed April 6, 2020
- 5 Kruse RL. Therapeutic strategies in an outbreak scenario to treat the novel coronavirus originating in Wuhan, China. *F1000 Res* 2020;9:72