

# COVID-19 Pandemic and Lessons for Future

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An art illustration of the SARS-Cov-2 virus and vaccine (Source: pixabay)

The COVID-19 pandemic has brought to light the need for greater preparedness for future outbreaks of emerging pathogens, according to an article in *The Lancet* on August 4.

A public-involved and prompt response strategy is vital in managing public health emergencies, and this approach should be based on cooperation, competition, communication, and coordination.

According to Professor George F. Gao, a renowned virologist and immunologist at the Institute of Microbiology of the Chinese Academy of Sciences, there are three steps toward handling public health emergencies. Firstly, science must be the basis for the control strategy. Secondly, the public must understand and comply with control measures, and lastly, authorities must make swift decisions.

“As the Director-General of the Chinese Center for Disease Control and Prevention and a scientist in Chinese Academy of Sciences, I experienced the whole process from the very beginning,” recalls Gao. “We investigated cases of what was termed pneumonia of unknown aetiology in the clinic at the end of December, 2019. By early January, 2020, a novel coronavirus was identified as the causative agent. We completed the genome sequencing of this virus and isolated the virus within a week. The sequences were shared with the whole world through Global Initiative on Sharing Avian

Influenza Data (GISAID). Most importantly, we shared the epidemiological parameters by publishing in the *New England Journal of Medicine*.”

He highlights the significance of science in determining the response to a pandemic, and the role that the public played in controlling COVID-19 through their motivation and involvement in public health efforts. He stresses the need for improved public understanding, involvement, and compliance. The decision-making process of the administration must be flexible, taking into account all feasible suggestions.

Gao also acknowledges the issue of an “infodemic” that accompanied the COVID-19 pandemic, where misinformation and false information spread rapidly. Controlling both the pandemic and the infodemic requires joint efforts, and the truth about the origin of COVID-19 should be determined by science and honesty, not speculation. He believes the COVID-19 outbreak was more likely a “grey rhino” event, a slow-moving and obvious threat that was ignored, rather than a “black swan” event.

Gao warns of the need for better preparedness for future pandemics, as coronaviruses that originate in animals could recombine and exchange genes, potentially leading to viruses that cause human infections. He calls on countries to share vaccines for the benefit of all and to work together for a healthy world.

## Reference

Moeti, M., Gao, G. F., & Herrman, H. (2022). Global pandemic perspectives: public health, mental health, and lessons for the future. *Lancet*, 400(10353), e3-e7. doi:10.1016/s0140-6736(22)01328-9