

# Letter to the Editor: COVID-19: 12 Tips for Crisis Management



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**Citation** Yari A, Motlagh ME, Zarezadeh Y. COVID-19: 12 Tips for Crisis Management. Health in Emergencies and Disasters Quarterly. 2022; 7(2):59-62. <http://dx.doi.org/10.32598/hdq.7.2.396.1>

**doi** <http://dx.doi.org/10.32598/hdq.7.2.396.1>

## Dear Editor

**B**iological events can rapidly spread throughout the world. The COVID-19 pandemic once again affirmed that the emergence of infectious agents could occur anytime and anywhere worldwide due to international travels and commercial relationships [1]. The pandemic of COVID-19 showed that despite the advances in medical sciences, the outbreak of unknown diseases is probable at any time [2].

Although the COVID-19 pandemic is a global health emergency, it cannot be resolved simply by medical and preventive measures. In other words, this crisis cannot be overcome without considering and applying the principles of Disaster Risk Reduction and Management (DRRM). This issue might be one of the reasons for the confusion and mismanagement that people witness everywhere. DRRM principles include Disaster Risk Reduction (DRR) and Disaster Risk Management (DRM). DRR reduces the damage caused by natural disasters, and DRM performs management activities to correct and mitigate disaster risk during a systematic process [2].

The complexity of the COVID-19 pandemic necessitates applying crisis management activities. These activities are made possible via public health surveillance, which is an essential component of contagious disease control measures in all types of crises alongside the execution of rapid control measures [3, 4]. It seems that neglecting the prin-

ciples of DRRM in addressing the COVID-19 pandemic has created many adverse consequences.

We argue that applying crisis management strategies would be beneficial in controlling the COVID-19 pandemic because many aspects and principles of the management of infectious disease pandemics are basically similar to those of other disasters. Crisis management activities such as incident action plans or drafting it with proper attention to DRRM principles must be considered. Essential issues such as drafting contingency scenarios, applying preventive measures, using efficient human resources, educating, training, planning for drills and exercises, involving public and all relevant organizations, and applying Community-Based Disaster Risk Management (CBDRM) principles would be very helpful in controlling the pandemic.

The other vital issues include leadership and collaboration, resource management, logistics and supplying equipment, employing all potential capacities such as recruiting medical and non-medical professionals, ensuring the continuity of services, compliance with the principles of triage, information management, communication, and public information. These activities must be evaluated and monitored to ensure health security [5].

It's worth mentioning that the priorities and conditions of each country or region greatly affect and determine their responses to the crises [6]. However, it has been reported that using an incident command system to manage the

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COVID-19 pandemic improves communication and leads to better resource use and more safety and security [7].

Management of emergencies and casualties is an integral part of healthcare systems [8]. These systems must apply emergency management principles to guarantee their adequate preparedness. Therefore, planning for responding to emergencies is the key responsibility of healthcare systems [9]. These systems must have a well-thought predetermined plan for surging capacity and healthcare delivery in times of emergencies [10].

DRRM principles are devised to solve life-threatening problems occurring in crises [11]. Applying these principles guarantees the right interventions. To minimize the mortality and morbidity of any crisis, activating Early Warning Systems (EWS) and prompt response are crucial. Timely and effective responses require proper management and planning based on highly predictable scientific scenarios [12]. In addition, due to the greater effect of the COVID-19 pandemic on vulnerable groups, prioritizing them is important [13].

It has to be noted that the literature review affirms the importance of an active DRRM approach in healthcare systems [6]. Therefore, to manage the COVID-19 epidemic as a mass casualty incident, all phases of the disaster risk management cycle should be implemented [14].

Based on what was discussed, we propose 12 tips derived from DRRM principles to manage the crisis of COVID-19 as follows:

1. Developing an incident action plan,
2. Preparing staff and the public via educating, training, drill, and exercise,
3. Engaging the whole community based on CBDRM principles,
4. Supplying equipment,
5. Employing potential capacities and surge capacity,
6. Ensuring the continuity of services,
7. Maintaining information management,
8. Monitoring and evaluation of DRRM,
9. Activating the incident command systems,
10. Ensuring the safety and security,

11. Activating early warning systems, and
12. Prioritizing vulnerable groups.

## Ethical Considerations

### Compliance with ethical guidelines

This article is a letter to editor with no human or animal sample, and there were no ethical considerations to be considered in this research.

### Funding

This study was carried out with the support of the Kurdistan University of Medical Sciences.

### Authors' contributions

All authors contributed equally in researching, designing, evaluating, discussing, and eventually in writing, correcting, editing, and approving the final manuscript.

### Conflict of interest

The authors declared no conflict of interest.

### Acknowledgments

The authors appreciate the executive support of the Kurdistan University of Medical Sciences.

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