



## **COVID-19: Iran's Actions to Deal with and Control the Pandemic and Practical Suggestions**

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Infectious diseases have always threatened the human life and destroyed social stability. These diseases are considered as important social problems and the governments have to take actions to control and defeat them<sup>1</sup>. Control of the infectious diseases is a public health achievement, so that the life expectancy average has increased 29 years in the 20<sup>th</sup> century. This is mainly due to the decrease in mortality and morbidity rates in children, significant progress in health, vaccination of children, and discovery of the antimicrobials. However, many new disease factors have been detected with the potential of epidemic in the same period. Based on the global evidences, the threat of epidemics has increased in the 20<sup>th</sup> century including severe acute respiratory syndrome (SARAS) in 2003 and Middle East respiratory syndrome (MERSE) in 2012<sup>1-3</sup>.

On 31 December in 2019, a group of patients were observed in Wuhan, China with a new type of disease which symptoms were very similar to the viral pneumonia. Although this disease was

different from SARS and MERS, it became known as the seventh member of the Corona virus family because of its structural similarities<sup>4</sup>. This disease was named COVID-19 (Corona Virus Infectious Disease, 2019) by the World Health Organization (WHO). On March 11, 2020, WHO declared COVID-19 as a pandemic<sup>5</sup>. Due to its high prevalence rate, the number of patients with this disease was reported as 20,850,734 in the world in August 13, 2020. Of these people, 13,742,803 have recovered and 748,037 people died. So, the fatality rate of this disease was 3.6%<sup>6</sup>.

Some of the WHO's strategies for confronting this pandemic were to cut the transmission chain from person to person; identify, isolate and early care of patients; assessment of the rate of transmission and infectious of the disease; speed-up to diagnosis, treatment and preparation of vaccines<sup>7</sup>.

This disease has spread throughout many countries including Iran. On February 19, 2020, the Ministry of Health and Medical Education

(MOHME) in Iran announced that the initial test results were positive for two suspected cases of new coronavirus in Qom<sup>8</sup>. According to the report of this ministry, the number of patients with COVID-19 in Iran on August 13, 2020, has reached to 336,324 cases that 292,058 of them had recovered and 19162 patients died. Considering the available statistics, the overall mortality rate of this disease was 5.7% in Iran, which is higher than the global average (3.6%)<sup>9</sup>. In Iran, some favorable actions have been taken to identify the patients and control the spread of this virus. Some of these actions included the national mobilization to confront COVID-19; implementation of social distancing plan; identification, screening, and triage of patients; follow-up of patients with mild severity of the disease from home; cooperation among various organizations; closure of schools, universities, and public gatherings; restrictions on entry and exit of cities; supply of medicine and medical equipment through domestic production; and conducting studies by Iranian researchers and scientists<sup>10</sup>.

Finally, some other useful actions can be recommended that should be considered to control and confront this pandemic: improving the health networks' infrastructures in terms of physical space, equipment, and manpower; formulating suitable strategic and operational plans to control this disease according to the experienced challenges and problems; strengthening medical staff psychologically to fight this epidemic with the help of psychologists; identifying ways to replace the personnel in involved wards of the hospital with other wards or with new employees to prevent staff burnout; training the staff regarding how to behave with patients; efficient management collaboration and cooperation of the NGOs and volunteers; supervising the health protocols' observance; and providing effective enforcement for mask wearing in the community, especially in public places and governmental offices. In addition, preparing or constructing crisis hospitals in the center of provinces; eliminating additional bureaucracies; preparing and providing the necessary infrastructures, equipment, supplies, and measures to manage this pandemic until it is completely

eradicated or limited; and using experiences of other countries and even provinces and cities of Iran that were successful in controlling this pandemic; as well as documenting these experiences and lessons to be used in the continuation of the management process of this disease or in similar future conditions.

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