

## METHODS

# The drastic consequence of COVID-19 among the population of Iran

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The word SARS, abbreviated “Severe Acute Respiratory Syndrome,” has been related to the Coronavirus-2 and is considered to be the major cause of COVID-19. People are dying as a result of a severe infection. A booster dose is applicable to boost the host body’s immunity against omicron attacks. No special precaution is needed to do except those which were already done for the COVID virus. The herd immunity developed against COVID cannot be developed against omicron. The booster vaccination will only reduce the infection severity, but it will not completely destroy the infection in the body. This omicron virus has the ability to quickly elucidate host immunity by creating mutations in its behavior such that host immunity becomes unable to recognize the antigen (omicron) inside the body.

**Keywords:** COVID-19, Iran, mortality rate, economic pressure

## Introduction

The is the largest virus with multiple classes and subclasses. As a result, great diversity exists in their genomes. Notwithstanding the SARS coronavirus (treated independently somewhere else right now), complete genome arrangements of six species in the coronavirus class of the coronavirus family [avian irresistible bronchitis infection Beaudette strain (IBV-Beaudette), ox-like coronavirus-ENT strain (BCoV-ENT), human coronavirus-229E strain (HCoV-229E), murine hepatitis infection A59 strain (MHV-A59), porcine transmissible gastroenteritis-Purdue 115 strain (TGEV-Purdue 115), and porcine plague looseness of the bowels infection CV777 strain (PEDV-CV777)] have now been accounted for. Their lengths extend from 27,317 nt for HCoV-229E to 31,357 nt for the murine hepatitis infection A59, building up the coronavirus genome as the biggest known among RNA infections. Now, one can imagine why these viruses are considered the largest RNA virus. The family Coronaviridae includes nonsegmented, enveloped, single-strand, positive-sense viruses called coronaviruses. Only two of the six coronavirus types that have been discovered thus far have generated epidemics with

high mortality rates: MERS-CoV (Middle East Respiratory Syndrome) and SARS-CoV (Severe Acute Respiratory Syndrome). However, a new COVID-19 virus was released in 2019, 7 years after the MERS pandemic, and it immediately caused a global outbreak (1). Patients who contracted this new COVID-19 virus displayed severe pneumonia symptoms, such as fever, exhaustion, a dry cough, and acute respiratory distress. According to primary findings, the new COVID-19-infected pneumonia (NCIP) had a mean incubation time of 5.2 days, which allowed for the disease’s quick worldwide dissemination via air passengers. The precise sequence for its genome replication is unknown, but major points have now been identified with advancements in technology and also the upcoming devastating results caused by COVID-19 have made it a great topic of interest for all scientists, microbiologists, and geneticists (2).

The coronavirus (COVID-19) was not considered a pandemic until March 11, 2020, when WHO declared it a global pandemic when it rapidly covered several countries of the world, just like a fire broke out in a forest (3). Coronavirus disease of 2019 (COVID-19) has swiftly spread throughout the world. On March 11, 2020, WHO declared the incident a worldwide pandemic. On February 19, 2020,

the top authority of Iran announced the results of COVID-19. As of March 16, 2020, 853 people have been diagnosed with extreme respiratory disease coronavirus 2, 14,991 people have been infected, and 4996 individuals have been recuperated. This disease basically started in Wuhan, a city in China, where hundreds of people died and millions were brought to their death beds by the emerging and rapidly spreading COVID-19. This disease not only affected the health of people, but it also severely debilitated the country's economy as international trade was halted badly due to this global cause (3).

Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), family Coronaviridae, genus Betacoronavirus is additionally influencing other Asian and non-Asian nations. Imported cases have been accounted for in nations, for example, Japan, Singapore, Hong Kong, Thailand, and Nepal. Some of the most severely affected countries include Italy and Iran, where countless numbers of victims have been reported and many of them have lost their battle against this virus. In this article, we will look at the economic and health crises that the Iranian people have faced in the past few months, and how far the battle has yet to go.

In barely 1 week after the first case was officially announced, the number of COVID-19 positive cases in Iran increased to 245 cases. Till date, Iran has had the second-highest number of COVID-19-related fatalities behind China (4). To control this situation, the Iranian government established a radiologic consultant group in order to detect suspicious COVID-19 cases. This society has taken the following steps in order to combat the disorder:

- ✓ Made instructive recordings with regard to the radiologic highlights of NCIP based on current articles and demonstrated cases in Iran.
- ✓ Developed a low-portion chest CT examination protocol for the study or possible screening of individuals with 19-COVID based on a modified form of the current lung malignant growth screening CT convention, rendition 5.1, initially given by the American Association of Physicists in Medicine (AAPM) (5).
- ✓ Structured an immediate diagnostic protocol that can serve as a substitute if a real-time polymerase chain reaction diagnostic kit is unavailable.
- ✓ Set up a meeting reaction group comprising national and global radiologists who represent considerable authority in thoracic imaging.
- ✓ Given recommendations for reciprocal demonstrative/remedial activities based on patients' radiology reports (6).

Now, we will have a look at the mortality rate in Iran. Approximately 71,686 cases were reported, out of which 43,894 cases have been recovered successfully, while 4,474

have lost their battle. Because this disorder is an immunity-based disorder that attacks those with weak immunity, such as children and the elderly, the majority of deaths occur in people over the age of 40 years and children under the age of 16 years.

## Mortality rate

- 19,388 are in mild conditions.
- 3,930 are in critical situation.
- Active cases 23,381.
- Closed cases 48,368.
- 43,894 have been recovered.
- 4,474 have been dead.

Apart from these statistics, thousands of new cases are emerging daily, with a devastating graph showing a rise of almost 500 cases, and an extreme case was recorded on March 28 with a total of 3,078 cases reported. These breathtaking statistics show a critical situation of Iran in the context of COVID-19.

An alarming linear graph showing death cases is too painstaking and agitating with the highest figure of 4,357 recorded on April 9. More frightening is the fact that this graph is increasing linearly from February 15 up to April 9 (7).

## Economic burden

These large-scale casualties have put Iran under economic pressure. For accommodating such a huge number of patients, a large number of beds, ventilators, medicines, and most importantly highly qualified staff are required. For safe management, protective suits are required along with surgical masks and gloves. Iran ran short of these kits, due to which it also demanded a \$5 bn (£4 bn) emergency loan to help fight the coronavirus, as its death toll neared 4,000. However, due to political pressure, this loan has been turned down, which worsened the situation. The financial misfortune brought about by the spread of COVID-19 in Iran concurs with the ever-most noteworthy politically incited sanctions against the nation. Albeit different authorizations have been set up as far back as four decades, since May 2019, the one-sided sanctions forced by the USA against Iran have expanded drastically to a practically all-out financial lockdown, which incorporates extreme punishments for non-US organizations directing business with Iran (6, 8). In all aspects of prevention, the nation is falling short in fighting the problem since both diagnosis and treatment are adversely affected. Lack of medical, pharmaceutical, and laboratory supplies, including protective kits and essential drugs, has increased the burden of the pandemic and the number of victims. The speed of the outbreak and the negative effects

of sanctions have led to decreased access to life-saving medicines and equipment, adding to the health sector's already high demand for other difficult health conditions. This is true even though WHO and other international humanitarian organizations have dispatched supplies and medical necessities (8). It is unfortunate that, in addition to the lives lost to this deadly virus, severe sanctions restrict access to essential supplies, killing further Iranian citizens (8).

Nevertheless, the Iranian government took all possible measures to stop the spread of the virus. Educational institutions were closed, people were exempted from entering religious places, spots galas were banned, and all sorts of parks and public gatherings were severely discouraged. Iran's Preeminent Pioneer, Ali Khamenei, chose to drop his Persian New Year discourse, which occurs each year at the Imam Reza place of worship, Mashhad.

On February 22, 2020, the Service of Islamic Culture and Direction declared the retraction of all things considered and other social occasions for many weeks.

Corona National Anti-virus Headquarters arranged the scholarly associations to dispatch learning the executives' frameworks. Iran's health ministry declared schools and colleges to shut until the beginning of the occasion of the Persian New Year, Nowruz, on March 20, 2020. Iran's health ministry service said that Friday prayer would not be held in Tehran and regions influenced by the episode that week. On February 20, as indicated by a letter from Iran's health ministry service to the legislative head of Qom, a solicitation was made to "limit the quantity of travelers at the Fatima Masumeh holy place and different strict locales." Be that as it may, Shia hallowed places in Qom stayed open for travelers to congregate. The head of Fatima Masumeh holy place urged pioneers to visit the sanctuary on February 27: "We believe this sacred holy place to be a position of recuperating" (9).

On March 16, 2020, to forestall the spread of the coronavirus, Fatima Masumeh hallowed place, Jamkaran Mosque in Qom, and Imam Reza holy place in Mashhad were closed.

To revitalize the country's economy, the Administrative and Recruitment Affairs Organization developed the system of telecommuting for government workers. On March 24, President Rouhani declared that half of all administration representatives would work remotely from home. To limit the spread of the malady, most organizations considered trivial has been shut down (5).

## Suspension of air traveling

Another reason for the thrashed economic condition of the country is that almost all eminent countries hampered their air traveling to and from Iran. Georgia halted flights to and from Iran on February 23. At the same time, Iran's borders with Pakistan, Turkey, Afghanistan, and Armenia were sealed. With three specific suspected incidents, Afghanistan stopped all forms of travel to and from Iran, while Turkey blocked all en-route departures from Iran. Iraq, Kuwait, Oman, Tajikistan, and Oman curtailed and stopped all flights from and to Iran on February 24. The residents of the Assembled Middle Easterner Emirates were restricted from venturing out to Iran. Armenia additionally suspended flights to Iran but planned flights to repatriate its residents from Iran. On February 26, Kazakhstan declared an arrangement to prevent flights to and from Iran beginning the 1 Walk 2020. On February 27, Russia reported that it will constrain flights to and from Iran aside from those work commencing on February 28, Aeroflot and Mahan Air will cease operating, and they will also stop issuing visas to Iranian citizens. New Zealand declared impermanent limitations on individuals going from Iran. Malaysia set up discrete migration paths for explorers from nations with major COVID-19 episodes, including Iran. On February 29, Australia declared a prohibition on outsiders showing up legitimately from Iran and required them to spend 14 days in a third country before coming to Australia. A woman returning from Iran had also tested positive for the illness. Later, Azerbaijan closed its border with Iran as two Azeri residents were affirmed to have been tainted by COVID-19 in Iran. On March 2, 2020, Sweden suspended flights operated by Iran Air, the main nation to boycott flights by the aircraft. On March 4, 2020, Thailand proclaimed that individuals coming from Iran must be isolated for 14 days subsequent to showing up with no symptoms of disease (10-13).

## Conclusion

The current situation in Iran is still delicate and complicated. Not only Iran, this scourge has occupied rapidly all other countries. To grab this virus, there is a dire need for an antidote. All over the world, highly qualified scientists, microbiologists, geneticists, and virologists are busy and are burning midnight oil to develop an antidote to save mankind, but up till now, no proper vaccine has been developed. However, there are traces of information collected regarding vaccines and possibly in a year, vaccines would be introduced in markets, but a year is still a big game to survive.

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