



## Securitising science: the COVID-19 crisis and vaccine politics in Iran

Saeid Ghavami

To cite this article: Saeid Ghavami (2025) Securitising science: the COVID-19 crisis and vaccine politics in Iran, *Infectious Diseases*, 57:7, 695-698, DOI: [10.1080/23744235.2025.2501603](https://doi.org/10.1080/23744235.2025.2501603)

To link to this article: <https://doi.org/10.1080/23744235.2025.2501603>



Published online: 09 May 2025.



Submit your article to this journal [↗](#)



Article views: 57



View related articles [↗](#)



View Crossmark data [↗](#)



COMMENT

## Securitising science: the COVID-19 crisis and vaccine politics in Iran

On December 30, 2019, Dr. Li Wenliang, a Chinese ophthalmologist, sent a private message to a group of fellow doctors *via* the WeChat app, attaching a diagnostic report of a patient. In this message, he warned of an outbreak of a SARS-like disease in Wuhan and urged them to be cautious with their families [1,2]. Although a few days later he was summoned to the Wuhan Public Security Bureau and forced to sign a statement retracting his comments, this report indicated the emergence of a new infectious disease called COVID-19 [3]. In the early months of 2020, due to limited information about transmission methods, misinformation, weak contact tracing, the high transmission rate of the virus, lack of a vaccine or specific treatment, asymptomatic cases, super-spreaders, and other factors, COVID-19 quickly crossed geographical boundaries and was soon officially declared the first pandemic of the twenty first century [4]. This pandemic has directly and indirectly caused millions of deaths. Additionally, the quality of life and health of many COVID-19 survivors continue to be affected by post-COVID complications, all of which have created significant economic consequences, particularly for healthcare systems worldwide [5]. Reviewing the COVID-19 responses of various governments and analysing their strengths and weaknesses can provide valuable lessons for managing future epidemics. This commentary discusses the management of the COVID-19 pandemic in Iran.

Iran—a country with relatively strong healthcare infrastructure, a young and educated population, and a vast geographical area—reported its first confirmed COVID-19 case on February 19, 2020, in the city of Qom, involving an individual with a history of travel to China [6]. However, unofficial reports on social media suggested the presence of patients with symptoms resembling respiratory viral infections that were likely misdiagnosed due to the simultaneous H1N1 flu epidemic [7]. The long gap between the initial and index cases allowed the virus to spread further. The absence of appropriate diagnostic kits during the early stages, coupled with the occurrence of government-sponsored events such as the

anniversary of the Islamic Republic on February 11 and the parliamentary elections, led authorities—including the state broadcaster—to censor and downplay the disease [8,9]. Initially, Iran's supreme leader, Ayatollah Khamenei, dismissed the disease as a U.S.-engineered conspiracy to reduce voter turnout in the elections [9,10]. Over a month later, after widespread transmission, the supreme leader revised his position and acknowledged COVID-19 as a new disease [11].

Digital mass hysteria and misinformation on social media during the early months led to large gatherings at COVID-19 diagnostic centres, likely contributing to further transmission [4,12,13]. The lack of clear communication from official sources and the widespread misinformation resulted in unregulated use of supplements like vitamin D, as well as incidents of alcohol poisoning and harm caused by improper disinfectant use [9,14,15].

Two months after Iran officially declared its COVID-19 outbreak, state television announced the unveiling of a new diagnostic tool called “Mostaan110” by the Islamic Revolutionary Guard Corps (IRGC). This device was claimed to detect the virus from a distance of 100 metres [9]. The Iranian Physics Society soon dismissed the claim as pseudoscience [9].

While effective measures like gathering restrictions, non-pharmaceutical interventions (NPIs) in public spaces, isolating infected individuals and returning travellers, using virtual platforms, and requiring negative PCR tests for work return were implemented, misguided policies such as street disinfection, night-time curfews, and temperature screening at entry points were also enacted.

A key turning point occurred on December 2, 2020, when the UK's MHRA approved the Pfizer vaccine [16]. However, shortly afterward, Iran's supreme leader banned the import of American and British vaccines [9]. This decision was supported by the Minister of Health, Saeed Namaki, who called the importation unwise [17]. In addition, 192 physicians submitted a letter to President Hassan Rouhani, expressing scepticism about the COVAX mechanism and explicitly demanding a ban on American, British, and French vaccines [18]. A

member of Iran's COVID-19 scientific committee—also the principal investigator on several domestic vaccine projects—defended the ban by citing anti-vaccine views and questioning mRNA vaccine technology [19]. Meanwhile, the Pfizer vaccine had already been approved in over 21 countries, including the US, UK, and EU nations.

Iran's official vaccination campaign began on February 9, 2021, using the Sputnik V vaccine, first administered to the son of the then Minister of Health [20]. According to modelling studies, if Iran had followed Bahrain's vaccination strategy, over 75,300 lives might have been saved, though this model did not factor in transmission reduction, hybrid immunity, or vaccine efficacy [21].

Several domestic vaccine projects—including COVIran Barakat, Noora, Razi COVPars, and FakhraVak—were launched, along with joint ventures with Cuba (Soberana) and Australia (SpikoGen) [22,23]. However, the involvement of security institutions and pressure on Iran's FDA to approve these vaccines raised concerns [24]. A week before the emergency authorisation of COVIran Barakat, the Ministry of Health's ethics committee warned the Health Minister about the premature nature of the approval process [25]. International concerns were validated when the Noora vaccine's only clinical trial publication was retracted by the Journal of Medical Virology due to serious flaws [26,27]. Similarly, peer-reviewed evidence highlighting the adverse effects associated with COVID-19 gene-based vaccines, particularly due to spike protein-related toxicity ("spikeopathy") [28]. The findings underscore the need for urgent re-evaluation of these novel vaccine technologies given their potential multi-organ impacts and long-term health risks. Studies found that both Noora and SpikoGen vaccines demonstrated weak immunogenicity [29–31]. Conflicts of interest might be also involved as some vaccine trial leaders simultaneously serving on the national COVID scientific committee [32]. The exclusion of convalescent plasma therapy from Iran's COVID-19 treatment guidelines, despite its proven benefits in immunocompromised patients, remains questionable [33]. Iran approved Remdesivir for emergency use [34].

The official COVID-19 death toll in Iran, as in many countries, likely underestimates the real figure [9,35,36], raising further concerns about transparency.

Despite inadequate infrastructure and policy missteps, the efforts of healthcare workers and the Iranian public's willingness to accept vaccination were pivotal in curbing the pandemic. Nevertheless, healthcare workers faced post-COVID complications, economic hardship, and

emotional trauma, leading to rising suicide rates and increased emigration among medical professionals and students. Scientists who questioned the vaccine strategy were harassed, with three researchers accused of sabotage, underscoring the risks of dissent in Iran's securitised scientific environment. These experiences point to a fundamental truth revealed by the pandemic. There should be more openness and transparency.

In conclusion, the COVID-19 pandemic has revealed the devastating consequences of sidelining science in favour of political agendas. Iran's experience illustrates how public health crises can be exacerbated when decisions are driven by ideology, misinformation, or opaque governance rather than by evidence, transparency, and international cooperation. Political interference in vaccine approval, censorship of expert voices, and the securitisation of scientific debate not only undermined public trust but also cost lives. Moving forward, health policy must be protected from politicisation. Governments must ensure that science—not political expediency—guides public health decision-making. Global health threats require a coordinated, apolitical response rooted in accountability, access, and the protection of scientific integrity. As we prepare for future pandemics, the world must embrace policies that prioritise openness, equity, and scientific truth, honouring the courage of individuals like Dr. Li Wenliang whose early warnings remind us of the ethical imperative to listen to science, even when it is inconvenient.

This article is dedicated to all who lost their lives during the COVID-19 pandemic in Iran, especially the many brave healthcare professionals who served under extraordinary pressure and risk. Although Dr. Aida Rostami, Dr. Ramin Pourandarjani, and Dr. Alireza Soudbakhsh were not victims of COVID-19, their tragic deaths in the context of systemic pressures on Iran's medical community remain emblematic of the risks faced by physicians who uphold ethical responsibility. We also gratefully acknowledge the contributions of an anonymous Iranian-Canadian physician couple whose insights were essential to the development of this article.

*"The hand that remained out of the grave" is an Iranian proverb referring to someone who, even in death, remains concerned for their country's well-being.*

## Acknowledgement

The author used CHatGPT4.0 for correction of English structure and grammar.

## Disclosure statement

No potential conflict of interest was reported by the authors.

## References

- [1] Yang L, Fang B, Ou X, et al. Commemoration and emotional sustenance: a text analysis of students' motivations behind online mourning of Dr Li Wenliang. *Omega (Westport)*. 2023; 302228231174492. doi: [10.1177/00302228231174492](https://doi.org/10.1177/00302228231174492).
- [2] Petersen E, Hui D, Hamer DH, et al. Li Wenliang, a face to the frontline healthcare worker. The first doctor to notify the emergence of the SARS-CoV-2, (COVID-19), outbreak. *Int J Infect Dis*. 2020;93:205–207. doi: [10.1016/j.ijid.2020.02.052](https://doi.org/10.1016/j.ijid.2020.02.052).
- [3] Green A. Li Wenliang Obituary [Biographical-Item]. *Lancet*. 2020;395(10225):682–682. doi: [10.1016/S0140-6736\(20\)30382-2](https://doi.org/10.1016/S0140-6736(20)30382-2).
- [4] Ferreira Caceres MM, Sosa JP, Lawrence JA, et al. The impact of misinformation on the COVID-19 pandemic. *AIMS Public Health*. 2022;9(2):262–277. doi: [10.3934/publichealth.2022018](https://doi.org/10.3934/publichealth.2022018).
- [5] Shah R, Ali FM, Nixon SJ, et al. Measuring the impact of COVID-19 on the quality of life of the survivors, partners and family members: a cross-sectional international online survey. *BMJ Open*. 2021;11(5):e047680.
- [6] Yavarian J, Shafiei-Jandaghi NZ, Sadeghi K, et al. First cases of SARS-CoV-2 in Iran, 2020: case series report. *Iran J Public Health*. 2020; 49(8):1564–1568. doi: [10.18502/ijph.v49i8.3903](https://doi.org/10.18502/ijph.v49i8.3903).
- [7] Elsabour Kinawy SA, Assalahi AA, Elnour Elshikh Ahmed G, et al. COVID-19 and H1N1 Influenza: are they 2 sides of the same coin? *Med J Islam Repub Iran*. 2023;37:71. doi: [10.47176/mjiri.37.71](https://doi.org/10.47176/mjiri.37.71).
- [8] Ahmadi ZH, Mousavizadeh M, Nikpajouh A, et al. COVID-19: a perspective from Iran. *J Card Surg*. 2021;36(5):1672–1676. doi: [10.1111/jocs.15054](https://doi.org/10.1111/jocs.15054).
- [9] Taefehshokr N, Martens B, Beheshti I, et al. The threat of science-related populism to global public health. Lessons from Iran. *medRxiv* 24319727;2024. doi: [10.1101/2024.12.28.24319727](https://doi.org/10.1101/2024.12.28.24319727).
- [10] Iran leader refuses US help, cites coronavirus 'conspiracy' theory; 2025. Al Jazeera. [cited Apr 23]. Available from: <https://www.aljazeera.com/news/2020/3/23/iran-leader-refuses-us-help-cites-coronavirus-conspiracy-theory>.
- [11] The Supreme Leader's recommendations to the people regarding the disease caused by the coronavirus. Islamic Consultative Assembly; 2025. [cited Apr 23]. Available from: <https://rc.majlis.ir/fa/news/show/1457059>.
- [12] Boudreau H, Singh N, Boyd CJ. Understanding the impact of social media information and misinformation producers on health information seeking. Comment on "Health Information Seeking Behaviors on Social Media During the COVID-19 Pandemic Among American Social Networking Site Users: survey Study." *J Med Internet Res*. 2022; 24(2): e31415. doi: [10.2196/31415](https://doi.org/10.2196/31415).
- [13] Neely S, Eldredge C, Sanders R. Authors' Reply: understanding the Impact of Social Media Information and Misinformation Producers on Health Information Seeking. Comment on "Health Information Seeking Behaviors on Social Media During the COVID-19 Pandemic Among American Social Networking Site Users: survey Study. *J Med Internet Res*. 2022;24(2):e31569. doi: [10.2196/31569](https://doi.org/10.2196/31569).
- [14] Quinn EK, Fenton S, Ford-Sahibzada CA, et al. COVID-19 and vitamin D misinformation on YouTube: content Analysis. *JMIR Infodemiol*. 2022;2(1):e32452. doi: [10.2196/32452](https://doi.org/10.2196/32452).
- [15] Kisa S, Kisa A. A comprehensive analysis of COVID-19 misinformation, public health impacts, and communication strategies: scoping review. *J Med Internet Res*. 2024;26:e56931. doi: [10.2196/56931](https://doi.org/10.2196/56931).
- [16] Pfizer and BioNTech. Achieve first authorization in the world for a vaccine to combat COVID-19. Pfizer and BioNTech; [cited 2025 Apr 23]. Available from: <https://www.pfizer.com/news/press-release/press-release-detail/pfizer-and-biontech-achieve-first-authorization-world>.
- [17] دفاع وزیر بهداشت ایران از دستور آیت‌الله خامنه‌ای: خرید واکسن آمریکایی با عقل جور در نمی‌آید (Iran's Health Minister defends Ayatollah Khamenei's order: buying American vaccines doesn't make sense). *BBC Persian*; 2025 [cited Apr 23]. Available from: <https://www.bbc.com/persian/iran-55609726>.
- [18] نامه سرگشاده ۲۵۰۰ پزشک، استاد و اعضای هیات علمی دانشگاه‌های علوم SSN. (Network) پزشکی به روحانی/نوع واکسن وارداتی مشخص شود. Open letter from 2,500 doctors, professors, and faculty members of medical universities to Rouhani: the type of imported vaccine must be specified; 2021 [cited Apr 23]. Available from: <https://snn.ir/fa/news/904622/>.
- [19] است فرانسه هم واکسن‌های فایزر و مدرنا را تایید نکرده خیرگزاری (France has also not approved the Pfizer and Moderna vaccines.). باشگاه خبرنگاران جوان (Young Journalists Club); 2025 [cited Apr 24]. Available from: <https://www.yjc.ir/fa/news/7623674/>.
- [20] Heidari M, Jafari H. Challenges of COVID-19 vaccination in Iran: in the fourth wave of pandemic spread. *Prehosp Disaster Med*. 2021;36(5):659–660. doi: [10.1017/S1049023X21000777](https://doi.org/10.1017/S1049023X21000777).
- [21] Ghafari M, Hosseinpour S, Rezaee-Zavareh MS, et al. A quantitative evaluation of the impact of vaccine roll-out rate and coverage on reducing deaths: insights from the first 2 years of COVID-19 epidemic in Iran. *BMC Med*. 2023; 21(1):429. doi: [10.1186/s12916-023-03127-8](https://doi.org/10.1186/s12916-023-03127-8).
- [22] Ghanei M, Mohabattalab A, Fartash K, et al. Exploring the experience of developing COVID-19 vaccines in Iran. *Clin Exp Vaccine Res*. 2023;12(1):1–12. doi: [10.7774/cevr.2023.12.1.1](https://doi.org/10.7774/cevr.2023.12.1.1).
- [23] Mallapaty S. Iran hopes to defeat COVID with home-grown crop of vaccines. *Nature*. 2021;596(7873):475–475. doi: [10.1038/d41586-021-02216-z](https://doi.org/10.1038/d41586-021-02216-z).
- [24] Nazemi P. چرا و چگونه واکسن‌های COVID-19 vaccines become a political issue? Pouria Nazemi; 2025 کرونا. به موضوعی سیاسی تبدیل شدند؟ [cited Apr 24]. Available from: <https://pourianazemi.com/?p=7547>.
- [25] Criticism of the Ethics Committee for Emergency Use Authorization of Iranian Vaccines; 2025. VOA Persian; [cited Apr 23]. Available from: [https://ir.voanews.com/a/persian-newsiran\\_criticism-ethics-committee-emergency-use-authorization-iranian-vaccines/6125052.html](https://ir.voanews.com/a/persian-newsiran_criticism-ethics-committee-emergency-use-authorization-iranian-vaccines/6125052.html).
- [26] Retraction: "Safety and immunogenicity of a recombinant receptor-binding domain-based protein subunit vaccine (Noora vaccine) against COVID-19 in adults: a randomized,

- double-blind, placebo-controlled, Phase 1 trial." *J Med Virol.* 2024;96(3):e29509.
- [27] Salimian J, Ahmadi A, Amani J, et al. Safety and immunogenicity of a recombinant receptor-binding domain-based protein subunit vaccine (Noora vaccine) against COVID-19 in adults: a randomized, double-blind, placebo-controlled, Phase 1 trial. *J Med Virol.* 2023;95(2). doi: [10.1002/jmv.28097](https://doi.org/10.1002/jmv.28097).
- [28] Parry PI, Lefringhausen A, Turni C, et al. Spikeopathy: COVID-19 spike protein is pathogenic, from both virus and vaccine mRNA. *Biomedicines.* 2023;11(8):2287. doi: [10.3390/biomedicines11082287](https://doi.org/10.3390/biomedicines11082287).
- [29] Dashti N, Golsaz-Shirazi F, Jeddi-Tehrani M, et al. Comparative immunogenicity and neutralization potency of four approved COVID-19 vaccines in BALB/c mice. *Iran J Immunol.* 2024;21(1):1–14. doi: [10.22034/iji.2024.101060.2728](https://doi.org/10.22034/iji.2024.101060.2728).
- [30] Daungsupawong H, Wiwanitkit V. Letter to the Editor regarding "Comparative immunogenicity and neutralization potency of four approved COVID-19 vaccines in BALB/c mice." *Iran J Immunol.* 2024;21(2):184–185. doi: [10.22034/iji.2024.101947.2764](https://doi.org/10.22034/iji.2024.101947.2764).
- [31] Saffaei A, Amani J, Salimian J, et al. Comments on "comparative immunogenicity and neutralization potency of four approved COVID-19 vaccines in BALB/c Mice." *Iran J Immunol.* 2024;21(3):261–270. doi: [10.22034/iji.2024.102579.2787](https://doi.org/10.22034/iji.2024.102579.2787).
- [32] Soleimani N, Ghoshouni H, Mostafavi H, et al. Addressing conflicts of interest regarding the vaccine in infectious disease outbreaks based on good governance for health approach: a policy brief. *BMC Health Serv Res.* 2023;23(1):1028. doi: [10.1186/s12913-023-10020-w](https://doi.org/10.1186/s12913-023-10020-w).
- [33] Bloch EM, Focosi D, Shoham S, et al. Guidance on the use of convalescent plasma to treat immunocompromised patients with coronavirus disease 2019. *Clin Infect Dis.* 2023;76(11):2018–2024. doi: [10.1093/cid/ciad066](https://doi.org/10.1093/cid/ciad066).
- [34] Eastman RT, Roth JS, Brimacombe KR, et al. Remdesivir: a review of its discovery and development leading to emergency use authorization for treatment of COVID-19. *ACS Cent Sci.* 2020;6(5):672–683. doi: [10.1021/acscentsci.0c00489](https://doi.org/10.1021/acscentsci.0c00489).
- [35] Ebrahimoghli R, Abbasi-Ghahramanloo A, Moradi-Asl E, et al. The COVID-19 pandemic's true death toll in Iran after two years: an interrupted time series analysis of weekly all-cause mortality data. *BMC Public Health.* 2023;23(1):442. doi: [10.1186/s12889-023-15336-0](https://doi.org/10.1186/s12889-023-15336-0).
- [36] Tadbiri H, Moradi-Lakeh M, Naghavi M. All-cause excess mortality and COVID-19-related deaths in Iran. *Med J Islam Repub Iran.* 2020;34:80. doi: [10.34171/mjiri.34.80](https://doi.org/10.34171/mjiri.34.80).

Saeid Ghavami

*Department of Human Anatomy and Cell Science, University of Manitoba College of Medicine, Winnipeg, Manitoba, Canada*

*Paul Albrechtsen Research Institute, CancerCare Manitoba, University of Manitoba, Winnipeg, Manitoba, Canada*

*Akademia Śląska, Katowice, Poland*

*Children Hospital Research Institute of Manitoba, University of Manitoba, Winnipeg, Manitoba, Canada*

 [saeid.ghavami@umanitoba.ca](mailto:saeid.ghavami@umanitoba.ca)