

## Short Communication

### Agile and Adaptive Management of COVID-19: The Case of Iran

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#### Abstract

Managing coronavirus disease-2019 (COVID-19) pandemic, as an unprecedented public health emergency is considered to be one of the most burdensome cases of Public Health Management (PHM) in the 21st century. Considering the extra predicaments in the Middle East, PHM has been even more challenging for Iran, a country in Western Asia. Salience of assessing public health policies and their main determinants is paramount till reaching a global control over the infection spread. Economic resilience, healthcare system experience, and cultural tendencies seem to be the major drivers of health policies in Iran. Enhancing control over intragovernmental sectors, boosting the implementation of social distancing measures, and allocating the resources in more systematic manners seem to be essential for achieving better results in PHM of COVID-19 in Iran.

**Keywords:** COVID-19; Economics; Health policy; Public health

#### Abbreviations

COVID-19: Coronavirus disease-2019; PHM: Public health management; CE: Community engagement; PHE: Public health emergency; PPE: Personal protective equipment; NCC: National committee for combating coronavirus; WHO: The World Health Organization

As of May 17<sup>th</sup>, 2020, after the official announcement of coronavirus disease 2019 (COVID-19) being in control in Iran, the reported number of infected people has mounted by more than 2-6 fold on August 6<sup>th</sup> (120198 versus 320117 cases) [1,2]. Further, the seven-day moving average of deaths due to COVID-19 has peaked from 49 to 201 in the same period [1]. Although several studies delineated the need for prompt interventions against the imposed US economic sanctions on Iran [3], the lack of international interest to addressing this issue has apparently braced a more sophisticated concoction of health policies in Iran during COVID-19 outbreak. Easing lockdowns in all provinces from mid-April has majorly contributed to the resurgence of the illness in Iran [4]. Contrarily, it seemed inevitable for the government to ease the lockdowns as obeying the strict epidemiologic approaches was practically leading to more economic shrinkage, even in impermanent settings [2]. As is well known, cultural tendencies in populations robustly affect

Community Engagement (CE) during Public Health Emergencies (PHEs). Iran is no exception to this and the government had major difficulties implementing social distancing rules in pilgrimage sites during the first peak of COVID-19 [5]. Another social trend is the imbued sense of identifiable lives and optimism bias among regular people in all professions and more robustly, among the medical staff and health policy makers [6]. These cognitive and cultural biases have tactfully been considered in major government decrees from February 2020 onwards, knowing that slightest chances of shortage in PPE leads to disastrous social objections. Consequently, these needs have been sufficiently addressed and even overcompensated till mid-August.

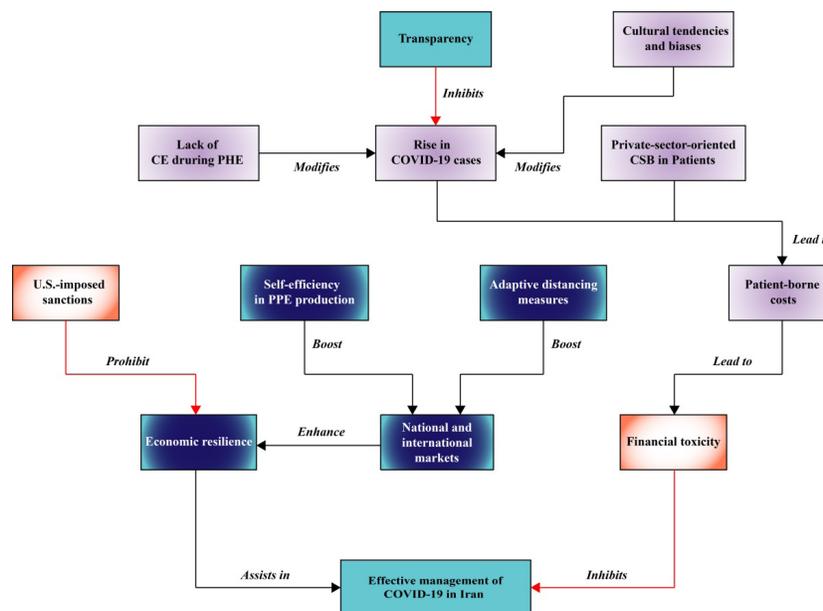
Struggling to compass health policies in ways to prevent economic afflictions, have seemingly been the cornerstone of Iran's policies during COVID-19 outbreak. This is in line with local evidence-based recommendations based on comparative global-scale studies [7]. The government's strategies towards prompt self-sufficiency in Personal Protective Equipment (PPE) [4], hospitalisation facilities [8], and potential post-infection therapies (and especially anti-viral drugs) [9] were all aimed at boosting national and even international consumer-and trade-markets for Iran. Announcing national policies and regulations by which eligible Iranian knowledge-based enterprises acquired the permission to export some types of PPE (e.g. surgical N95 respirators) to the neighbouring countries, is an instance of

enhancing such trade markets in the region [10]. Given that Iran has applied both agile and adaptive governances to effectively react to COVID-19 outbreak, its approach can be presented as a mixed crisis management strategy [11]. Owing to an experienced healthcare system in the region, which had previously been challenged by several natural disasters and outbreaks, overall outcomes of Iran’s management of the COVID-19 could be considered as quite acceptable [12].

Looked at from an economic perspective, Iran’s government officials have been quite aware of domestic infrastructures and available resources to mitigate the consequences of the pandemic. Setting a National Committee for Combating corona virus (NCC) and many other coalitions to monitor the viral spread and mapping the viral hotspots in the country [13], building emergency hospitals for COVID-19 patients [14], and announcing infection-control protocols for healthcare facilities [15], are all specimens of agile management approach in Iran. However, lack of a ubiquitous control over the intragovernmental facilities has provoked the costs of preventive and therapeutic measures to express a patient-borne disposition rather than the expected government-borne costs. Despite government’s attempts to subsidising the hospitalisation fees in public facilities and maximizing the public insurance coverage, local news and anecdotal evidence irreconcilably report an increasing burden of healthcare costs on Iranian individuals and the resultant financial toxicity during COVID-19 [16]. This can root from lack of public confidence in public sector of healthcare system in Iran. Fear of contracting the virus in public facilities and perceiving the care quality as being low in these healthcare

centres, could be introduced as major directors for patients’ care-seeking behaviour and choosing the private sector over the public settings [17].

Another probable cause for the surge in COVID-19 cases might be the public uncertainty about official COVID-19 reports in Iran, reported by the World Health Organization (WHO) [3]. Though the main concern has been the underestimation of cases, the entrenched public suspicion about the reports, misled some to presuming lower extents of viral spread than reported. This scepticism has been a hot topic for media these days as several reports claimed that data leaks show the real figure of death toll to be much higher due to delays in obtaining the data and lack of transparency [18]. While these claims have all been rejected by official authorities of Iran, they got echoed and narrated among people and have been somewhat effective to change the public perspective about the pandemic afflictions. This represents the paramount of setting higher regulations on the media when they undermine official reports in times of a PHE as it can critically alter the CE. This could distinctly stray the outcomes of public health policies and official reports towards unsolicited directions leading to more complicated predicaments in public health management (PHM) [19]. Significant increase in online searching volumes (through search engines) concerning medical care provision topics, could be considered as a harsh harbinger of increasing levels of ambivalence and health anxiety among the public during PHEs [20]. A schematic view of all these interactions is depicted in Figure 1.



**Figure 1:** Schematic view of major determinants of health policies during COVID-19 outbreak in Iran. CSB: care seeking behavior; PPE: personal protective equipment; CE: community engagement; PHE: public health emergency.

Overall, it might be argued that Iran has responded to the COVID-19 outbreak in both agile and adaptive manners during mid-March to mid-August period. The need for easing or removing the U.S. sanctions (even temporarily) is still very tangible and requires further multilateral interventions. Adaptive nonpharmaceutical interventions and localised “smart distancing” measures in Iran do not seem to have been effective in halting the viral spread as of now. However, these political approaches appear as productive economic boosters for the government in Iran. This might optimistically lead to better management results of COVID-19 in the future if the resources are more systematically allocated to preventive and therapeutic measures.

## References

1. Worldometers (2020) Iran Coronavirus cases Dover, Delaware, U.S.A.
2. Priya Venkatesan (2020) COVID-19 in Iran: round 2. *Lancet Infect Dis* 20: 784.
3. Murphy A, Abdi Z, Harirchi I, McKee M (2020) Economic sanctions and Iran's capacity to respond to COVID-19. *Lancet Public Health* 5: e254.
4. Devi S (2020) COVID-19 resurgence in Iran. *Lancet* 395: 1896.
5. Yoosefi Lebni J, Abbas J, Moradi F, Salahshoor MR, Chaboksavar F, et al. (2020) How the COVID-19 pandemic effected economic, social, political, and cultural factors: A lesson from Iran. *International Journal of Social Psychiatry*.
6. Halpern SD, Truog RD, Miller FG (2020) Cognitive Bias and Public Health Policy During the COVID-19 Pandemic. *JAMA* 324: 337-338.
7. Raoofi A, Takian A, Sari AA, Olyaeemanesh A, Haghghi H, et al. (2020) COVID-19 pandemic and comparative health policy learning in Iran. *Arch Iran Med* 23: 220-234.
8. Behzadifar M, Ghanbari MK, Bakhtiari A, Behzadifar M, Bragazzi NL (2020) Ensuring adequate health financing to prevent and control the COVID-19 in Iran. *Int J Equity Health* 19: 61.
9. Iran Daily (2020) Remdesivir Officially on Iran Drug List. Tehran, Iran: Sokhan Gostar Cultural Institute.
10. Agency TIRN. Iran exports N95 masks, mask production machines. IRNA.
11. Janssen M, van der Voort H (2020) Agile and adaptive governance in crisis response: Lessons from the COVID-19 pandemic. *Int J Inf Manage* 102180.
12. Khankeh HR, Khorasani-Zavareh D, Johanson E, Mohammadi R, Ahmadi F, et al. (2011) Disaster health-related challenges and requirements: a grounded theory study in Iran. *Prehosp Disaster Med* 26: 151.
13. Maziar P, Razavi S, Hosseini Ghavamabad L (2020) Letter to editor: Covid-19 and dealing with it-lessons learned in Iran. *Med J Islam Repub Iran* 34: 752-753
14. Pourghaznein T, Salati S (2020) National Approach in Response to the COVID-19 Pandemic in Iran. *Int J Community Based Nurs Midwifery* 8: 275.
15. Amir-Behghadami M, Janati A, Gholizadeh M (2020) Battle with COVID-19 in Iran: What lessons can be learned from the implementation of reaction strategies so far?. *Infect Control Hosp Epidemiol* 1-6.
16. Corona treatment is not free From 5 to 150 million tomans.
17. Alijanzadeh M, Zare SAM, Rajaei R, Fard SMAM, Asefzadeh S, et al. (2016) Comparison Quality of Health Services between Public and Private Providers: The Iranian People's Perspective. *Electron Physician* 8: 2935-2941.
18. News P (2020) Iran: Parliament body rejects fake coronavirus tolls reported by foreign media. ParsToday News Agency.
19. Garfin DR, Silver RC, Holman EA (2020) The novel coronavirus (COVID-2019) outbreak: Amplification of public health consequences by media exposure. *Health Psychology* 39: 355-357.
20. Sofi-Mahmudi A, Shamsoddin E, Ghasemi P, Mehrabi Bahar A, Shaban Azad M, et al. (2020) The association between lockdown due to COVID-19 epidemic and searches for toothache using Google Trends in Iran.