

The 2019 Coronavirus Disease (COVID-19) Crisis Management: Do They Have Health-Protective Effects?

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ABSTRACT

Governments have implemented measures such as mask wearing, physical separation, heightened hygiene and disinfection, house confinement, and economic shutdown in response to the continuing 2019 coronavirus illness (COVID-19) epidemic. These actions have significant negative repercussions for the economy and public health. Nevertheless, as they help to enhance certain elements of population health, these same policies also have beneficial “side effects” that are worthwhile to mention. Wearing a mask, for example, can lessen the spread of other airborne disease-causing bacteria and allergens.

Limiting social contact and physical distance both aid in preventing the spread of infectious diseases, and a shutdown of the economy can lessen pollution and the health issues it causes. Decision-makers may find these encouraging “side effects” to address and prevent illnesses such noncommunicable diseases, allergies, and infectious diseases, as well as to enhance medical care and pathology management. In fact, the efficiency of these interventions in treating specific health issues motivates one to draw inspiration from COVID-19 interventions for the treatment of specific health issues. To further optimize COVID-19-related measures, health care professionals and decision makers must discuss how to weigh the benefits and drawbacks of these measures in light of the severe harm they have caused to people's lives and economies of nations.

Keywords: coronavirus disease 2019 (COVID-19); measures; positive; health.

The coronavirus disease crisis of 2019 (COVID-19) is a global health issue [1] that has detrimental effects on public health (mental, physical, obesity, immunity, etc.) and the economy [2-4]. It is important to remember that these outcomes are mostly the result of the policies put in place by countries to stop the COVID-19 virus from spreading. While distance, lockdowns, and travel limitations have major negative consequences, mask wearing and improved hygiene have nearly exclusively favorable effects. As a matter of fact, we have adopted new lifestyle habits concerning social limitations, hygiene, and health practices as a result of the ongoing COVID-19 pandemic [1].

In this setting, the COVID-19 pandemic's detrimental health effects are the main subject of media coverage and medical attention, although Positive impacts like this would be considered “side effects” because they cannot balance out the negative consequences or support the measures in the absence of a pandemic. But they're nonetheless important to discuss in order to address other points.inside the COVID-19 outbreak. Here, we provide examples that demonstrate how the implemented actions can improve public health in relation to illnesses and conditions other than COVID-19. These kinds of instances encourage us to think about using similar (optimal) strategies to address and manage different public health concerns.

Hand washing and/or hand sanitizing with alcohol sanitizer are examples of good hygiene practices that eradicate a variety of pathogens and prevent health issues such as respiratory and gastrointestinal infections [5, 6], diarrhea episodes [7], nosocomial pathogens [8], and illnesses linked to healthcare [9]. Furthermore, the increasing frequency of cleaning and disinfection in homes and public areas gets rid of a lot of the germs that people often come into contact with. through physical supports and surfaces being touched.

Lockdown and confinement [10], together with physical separation [11], lessen social connections and restrict the locations (occasions) where people congregate. As a result, the number of infections spread through human contact drops. Thisis further reinforced by the restrictions on both domestic and foreign travel.

Furthermore, a lot of public spaces have been closed,

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which reduces the opportunities for people to congregate in locations like theaters, movie theaters, stadiums, gymnasiums, and museums where viruses can spread actively.

Lockdowns and economic shutdowns, among other measures, may lower the global pollution rate in addition to infectious pathogens [12–14]. It is well recognized that pollution causes a wide range of illnesses [15], including kidney disorders [16] and birth defects [17].

Consequently, reducing pollution may improve pollution-related health issues in the population, particularly in developing nations [18], and avoid a wide range of illnesses, including noncommunicable diseases.

Importantly, wearing masks may also assist to minimize the transmission of respiratory diseases like the flu, inhalation of some airborne pollutants, and exposure to substances that cause allergies. Masks are worn to prevent the spread of COVID-19 [21]. In this case, it's crucial to draw attention to the general public's growing understanding of how diseases can be prevented and spread, which is important given the role that population education plays in controlling health issues.

In summary, these findings indicate qualities that merit investigation within an epidemiological framework in order to devise strategies for addressing health issues that might be enhanced by the actions implemented during the current COVID-19 pandemic. In this regard, we also like to draw attention to the growing prevalence of computer use and Throughout the pandemic, internet awareness—which was previously uncommon in rural parts of poor and undeveloped countries—has proven essential. With the advent of remote working, it is now much simpler to disseminate health-related information and take the necessary preventative and protective measures against the disease, raising public awareness and enhancing health education for even experts. This article does not intend to defend the actions by downplaying the frequently significant harm.

These beneficial “side effects” could serve as a model for decision-makers, who could then use them to improve pathology management and healthcare delivery while addressing and preventing conditions including allergies, infections, and noncommunicable illnesses. In fact, the efficiency of these actions in Addressing specific health issues promotes taking COVID-19 measures as inspiration for managing specific health issues. However, given the severe harm that COVID-19-related measures have caused to national economies and the lives of their citizens, health care providers and policymakers should discuss how to weigh the benefits and drawbacks of these measures. The goal of this effort is to reduce the negative effects we have observed while employing strategies motivated by the management of the COVID-19 pandemic to promote public health.

REFERENCES

1. Pollard, C.A.; Morran, M.P.; Nestor-Kalinoski, A.L. The COVID-19 pandemic: A global health crisis. *Physiol. Genom.* 2020, 52, 549–557. [CrossRef] [PubMed]
2. Dong, L.; Bouey, J. Public Mental Health Crisis during COVID-19 Pandemic, China. *Emerg. Infect. Dis.* 2020, 26, 1616–1618. [CrossRef]
3. Ghanemi, A.; Yoshioka, M.; St-Amand, J. Coronavirus Disease 2019 (COVID-19) Crisis: Losing Our Immunity When We Need It the Most. *Biology* 2021, 10, 545. [CrossRef]
4. Ghanemi, A.; Yoshioka, M.; St-Amand, J. Will an obesity pandemic replace the coronavirus disease-2019 (COVID-19) pandemic? *Med. Hypotheses* 2020, 144, 110042. [CrossRef]
5. Gold, N.A.; Mirza, T.M.; Avva, U. Alcohol Sanitizer. In *StatPearls*; StatPearls Publishing: Treasure Island, FL, USA, 2018.
6. Foddai, A.C.; Grant, I.R.; Dean, M. Efficacy of Instant Hand Sanitizers against Foodborne Pathogens Compared with Hand Washing with Soap and Water in Food Preparation Settings: A Systematic Review. *J. Food Prot.* 2016, 79, 1040–1054. [CrossRef]
7. Ejemot, R.I.; Ehiri, J.E.; Meremikwu, M.M.; Critchley, J.A. Hand washing for preventing diarrhoea. *Int. J. Epidemiol.* 2008, 37, 470.
8. Kampf, G.; Kramer, A. Epidemiologic background of hand hygiene and evaluation of the most important agents for scrubs and rubs. *Clin. Microbiol. Rev.* 2004, 17, 863–893. [CrossRef] [PubMed]
9. Allegranzi, B.; Pittet, D. Role of hand hygiene in healthcare-associated infection prevention. *J. Hosp. Infect.* 2009, 73, 305–315. [CrossRef]
10. Alfano, V.; Ercolano, S. The Efficacy of Lockdown Against COVID-19: A Cross-Country Panel Analysis. *Appl. Health Econ. Health Policy* 2020, 18, 509–517. [CrossRef] [PubMed]
11. Jones, N.R.; Qureshi, Z.U.; Temple, R.J.; Larwood, J.P.J.; Greenhalgh, T.; Bourouiba, L. Two metres or one: What is the evidence for physical distancing in covid-19? *BMJ* 2020, 370, m3223. [CrossRef]

12. Briz-Redón, Á.; Belenguer-Sapiña, C.; Serrano-Aroca, Á. Changes in air pollution during COVID-19 lockdown in Spain: A multi-city study. *J. Environ. Sci.* 2021, 101, 16–26. [CrossRef] [PubMed]
13. Dutheil, F.; Baker, J.S.; Navel, V. COVID-19 as a factor influencing air pollution? *Environ. Pollut.* 2020, 263, 114466. [CrossRef]
14. Muhammad, S.; Long, X.; Salman, M. COVID-19 pandemic and environmental pollution: A blessing in disguise? *Sci. Total. Environ.* 2020, 728, 138820. [CrossRef] [PubMed]
15. Suk, W.A.; Ahanchian, H.; Asante, K.A.; Carpenter, D.O.; Diaz-Barriga, F.; Ha, E.H.; Huo, X.; King, M.; Ruchirawat, M.; Da Silva, E.R.; et al. Environmental Pollution: An Under-recognized Threat to Children's Health, Especially in Low- and Middle-Income Countries. *Environ. Health Perspect.* 2016, 124, A41–A45. [CrossRef] [PubMed]
16. Xu, X.; Nie, S.; Ding, H.; Hou, F.F. Environmental pollution and kidney diseases. *Nat. Rev. Nephrol.* 2018, 14, 313–324. [CrossRef]
17. Baldacci, S.; Gorini, F.; Santoro, M.; Pierini, A.; Minichilli, F.; Bianchi, F. Environmental and individual exposure and the risk of congenital anomalies: A review of recent epidemiological evidence. *Epidemiol. Prev.* 2018, 42, 1–34. [PubMed]
18. Briggs, D. Environmental pollution and the global burden of disease. *Br. Med. Bull.* 2003, 68, 1–24. [CrossRef] [PubMed]
19. Chen, S.; Bloom, D.E. The macroeconomic burden of noncommunicable diseases associated with air pollution in China. *PLoS ONE* 2019, 14, e0215663. [CrossRef]
20. Neira, M.; Prüss-Ustün, A.; Mudu, P. Reduce air pollution to beat NCDs: From recognition to action. *Lancet* 2018, 392, 1178–1179. [CrossRef]
21. Zhai, Z. Facial mask: A necessity to beat COVID-19. *Build. Environ.* 2020, 175, 106827. [CrossRef]
22. Baker, D.P.; Leon, J.; Smith Greenaway, E.G.; Collins, J.; Movit, M. The Education Effect on Population Health: A Reassessment. *Popul. Dev. Rev.* 2011, 37, 307–332. [CrossRef] [PubMed]